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# THE UNCERTAIN WORLD OF BUDGETING AT STATE UNIVERSITIES

**David A. Bradbard, Winthrop University**  
**D. Keith Robbins, Winthrop University**  
**Charles Alvis, Winthrop University**

## ABSTRACT

*Winegar University confronts the increasingly hostile budgeting environment presented by the most significant economic recession since the great depression. State assisted universities have limited means of compensating for decreased state and federal funding. Underlying the budgeting scenarios are complexities such as tuition price discrimination elasticity of tuition pricing, admission acceptance standards, and faculty to student ratios.*

*This case presents instructors with an opportunity to demonstrate how spreadsheets can assist managers with respect to their planning, budgeting, and decision-making responsibilities. The specific spreadsheet skills covered involve the construction of one- and two-dimensional data tables. By using this case, instructors are enriching students MIS repertoire within a context with which they should be intimately familiar: college tuition pricing. The case will illuminate the utility of spreadsheet tools in support of fundamental management decision making activities.*

## INTRODUCTION

This case is intended for introductory principles of management or finance course required in most undergraduate business curriculum. Students should quickly warm to discussions of such sensitive issues as tuition price increases, student user fees, tuition price discrimination (e.g., like airline seats if you polled five students in a classroom you'd find that no two pay the same tuition), net present value estimates for college education, faculty salaries, and faculty student ratios or class sizes. Students and their parents confront these issues on a year-to-year and semester-to-semester basis. Many students are incurring debt as a means to invest in their financial future. Two areas where the case is relevant include: (1) managerial responsibilities with respect to planning, budgeting, and controlling and (2) managerial decision making with the assistance of a decision support system (i.e., a spreadsheet set up for what-if analysis). The case can be assigned as soon as these topics have been covered.

With respect to area one, the objective of the case is to put students in real life setting where they can experience the difficulties of planning, budgeting, and decision-making in a real life situation that is relatively familiar to students. Regarding area two, the objective is to show students effective spreadsheet techniques (i.e., what-if analysis) that can be used for planning, budgeting, and decision-making situations. By using what-if analysis, students can systematically change the input variables to determine the effects on the output variables.

The case employs several features from the Excel spreadsheet program that are usually considered advanced topics. These include one- and two-variable data tables. Instructors can find material on these topics in books that specialize in Excel (e.g., Oja, D., Parsons, J, Carey, P., & Ageloff, R., 2010; Winston, 2004).

### **SYNOPSIS OF THE CASE**

The organizational setting for the case is a moderately sized public university with a total enrollment of 6,500 students. The major players are the Vice President of Finance (Percy Bradshaw) and the Director of Academic Computing and User Support (Gerald Radner). It is early summer and Percy is attempting to finalize the university's budget for the coming academic year. His task is complex for several reasons. First, the state legislature has not completed deliberations with respect to allocations of funds for the coming year. Second, there was a budget shortfall in the current fiscal year that was covered by the university's reserve funds. The university president has stated that this cannot happen again.

Percy must present the president with a draft of the budget and as a result of the complexities of this situation he is feeling overwhelmed. Fortunately at this crucial decision time, Percy has a chance meeting with Gerald. As a result of this meeting, Gerald offers to show Percy several tools from Excel that might make Percy's task easier.

Percy needs a way to present the budget so that it can quickly be revised as the situation changes. In the dialog that follows, Percy explains the major variables related to expenses and revenue. Based on this discussion, Gerald shows Percy a way to systematically vary in-state tuition revenues to examine the effect of this variable on the budget.

As state support for universities has declined, most state schools have responded by increasing tuition to offset the diminished funds from the state. Public state universities generally enroll both in-state and out-of-state students. Usually, state universities charge in-state students a lower tuition rate than out-of-state students. The higher tuition paid by out-of-state students provides an incentive for schools to enroll more out-of-state students.

#### **Pedagogical Implications**

This case provides instructors with an opportunity to put the planning, budgeting, and decision-making responsibilities of managers in a real world context reasonably familiar to students. The case setting also enables students to extend their analytic and spreadsheet skills by introducing advanced topics such as one- and two-variable data tables. As an added bonus, utilization of cases such as this provides a strong example of how to integrate concepts from different parts of the curriculum.

Students should employ spreadsheet software so they are aware managers have powerful tools for examining complex environmental situations. Budgeters and strategists are instantly able to depict outcomes associated with different estimates of key factor trends. Facility with data tables is a first step toward understanding the power of these tools. The university setting depicted in this case is one students find painfully (in terms of their purse strings) relevant.

## **REFERENCES**

Parsons, J., Oja, D., Ageloff, R. & Carey, P. (2010). *New perspectives on Microsoft Excel 2007, Comprehensive*. Thomson Course Technology: Boston, MA.

Winston, W. L. (2004). *Microsoft Excel data analysis and business modeling*. Microsoft Press: Redmond, WA.



# ENTERING THE ICE CREAM BUSINESS: A CASE STUDY OF KLEINPETER FARMS DAIRY

**John James Cater III, Nicholls State University**  
**Ken Chadwick, Nicholls State University**

## CASE DESCRIPTION

*The primary subject matter of this case is strategic management for small business, specifically developing a new product and entering into a new competitive arena for an established small family business. Secondary issues examined include marketing strategy, human resource management, and operations management in the small family business. The case is appropriate for junior and senior level undergraduate courses. The case is designed to be taught in one class hour and is expected to require approximately three hours of outside preparation by students. The events described in this case are based on real world experiences.*

## CASE SYNOPSIS

*Jeff Kleinpeter, fourth generation CEO of Kleinpeter Farms Dairy, has boldly led his family's business into a new product/market area, specifically the production and distribution of ice cream. For nearly one hundred years, Kleinpeter Farms Dairy has served the south Louisiana area as the leading milk processor and distributor, but now the company has invested millions of dollars in a new, but related product. Jeff seeks to build on the loyalty and goodwill generated among consumers because of Kleinpeter's excellent reputation for high quality milk products in the south Louisiana area. Kleinpeter appeals to local customers through cross-branding other Louisiana products, such as Ponchatoula strawberries, Bergeron pecans, and Elmer's Gold Brick Eggs. After the new product is launched, the company experiences challenges in marketing, operations, and human resource management.*

# **STOLEN DATA AND FRAUD: THE HANNAFORD BROTHERS DATA BREACH**

**Danial L. Clapper, Western Carolina University**

## **ABSTRACT**

*As more and more personal and financial information is stored online, data breaches - the unintentional exposure of confidential information - are becoming an increasing concern for both the organizations which must keep that data safe and the customers who may become victims of credit card fraud or identity theft if they fail to do so. Unfortunately, the number of data breaches is on the rise: according to one report, 2008 was the biggest year ever for data breaches - with more customer records compromised than the prior four years combined.*

*One of the most publicized victims of a 2008 data breach was the Hannaford Brothers grocery chain. On March 17, 2008 Hannaford Brothers Company announced that it had been the victim of a data breach caused by a malware attack it characterized as "new and sophisticated" which resulted in over 4.2 million credit and debit card numbers being compromised. In each of its over 300 grocery stores in the northeast and Florida the malware had intercepted customer credit and debit card data during the authorization process and then sent the stolen data to a remote site overseas. The stolen credit card data was fraudulently used in at least 1,800 cases in the U.S. as well as Mexico, Bulgaria and Italy.*

*This case will examine the details of the Hannaford Brothers case, including a timeline of theft, discovery and response, the nature of the stolen data and how the criminals engineered this data breach. In the process of this examination students will get a closer look at the nature of credit card data, how stolen data is used to commit fraud, the industry security standards in place to keep that data secure, and how they were circumvented for this data breach to occur. Finally, the repercussions and costs to Hannaford Brothers will be detailed.*

# SEARS HOLDINGS CORPORATION: DETERMINING THE RETAILER'S FUTURE ONE MANAGEMENT TRAINEE AT A TIME

Kasia Firlej, Purdue University Calumet

## CASE DESCRIPTION

*The primary subject matter of this case concerns the fate of Sears and its image with the customers and its employees. The case is based on the experience of a management trainee who has recently interned with the company. Some issues explored in the case are those of retailing strategy, human resource management in a retail structure and the all-important customer satisfaction. The case has a difficulty level of three, appropriate for junior level students. The case is designed to be taught in one class hour and is expected to require no more than two hours of preparation by students.*

## CASE SYNOPSIS

*The iconic retailer Sears has undergone a major transformation from a stalwart of the American dream and a retailer where Baby Boomers furnished their lifestyle under the thriving post WWII economy. Fast forward to the twenty first century and the year 2005; Eddie Lambert is hailed "Warren Buffet" a maverick investor who pledges to turn the fate of the struggling outdated retailer. ESL investments, headed by Lambert acquires Kmart stores in order to compliment Sears' mall locations with that of Kmart's freestanding ones. All eyes are on Lambert as he begins desperate cost cutting measures by eliminating unprofitable lines and firing redundant employees, as well as outsourcing some operations.*

*This case examines the experience of a college intern which mirrors the continued erosion of brand equity and consumer satisfactions causing Sears' profits to slump.*

## CASE

Ellen has just landed a great summer internship. Her employer is one of the biggest retailers in the United States, second only to such giants as Wal-Mart and Home Depot. She is excited about her prospects as a management trainee. In addition to learning how to manage different departments she has landed a job that will pay her a generous \$15.00 per hour, and will allow her to earn some extra money during the long summer break. Ellen hopes that landing an internship with such an iconic retailer will help launch her career.

The reality of Ellen's internship hit her in the first week. The management trainee internship was obtained by Ellen through her local university where she is a business management student. Sears selected an appropriate pool of students through the internship coordinator at the local business school and Ellen was chosen as the best candidate.

The store manager forgot that she was to arrive. Besides, the store manager was out to lunch and did not return for about three hours. Ellen didn't let that deter her. She warmly greeted the store manager and announced that she was the new management trainee ready to learn and willing to help with anything; "and a lot help we need around here" announced the store manager. Ellen was asked to work with Diane, a department manager in charge of soft lines.

What struck Ellen as odd at first were all of the clothes that hadn't been put on racks. "Oh, those need to be zeroed out" or "returned to vendor" announced Diane, the soft lines manager. Ellen inquired as to why the merchandise hadn't been displayed on the shop floor. The response was "we are simply short-handed and can't keep up with the amount of new merchandise that has to be tagged and displayed. "Besides" remarked the soft lines manager "just between us, the more merchandise we have on the shop floor the more of it we have to keep on marking down". One of Ellen's primary activities in the soft lines department was marking down merchandise. Ellen also found herself dealing with many customer complaints that ranged from unavailable fitting rooms and cash wraps to long checkout lines and being out of stock on advertise merchandise.

She was not worried, however, as the schematic provided by the corporate office outlines the progression of her internship. According to the mandate from the headquarters Ellen would rotate between the different departments and acquire all of the necessary skills to become a department manager.

Ellen's second week as a manager trainee looked hopeful. She was scheduled to be transferred to the electronics department. The management trainee was familiarized with the department's specific layout and was given a list of schematics which to follow when displaying sales merchandise called planograms. Ellen soon learned that the planograms were issued by the headquarters and didn't take into account the slightly different layout of the store and the physical barriers that prevented the products from being properly displayed. There seemed to be a shortage of associate and the customer complaints continued. Ellen was scheduled to meet on a regular basis with the department manager, but the appointment was never kept.

By the third week Ellen was schedule to arrive at the home and garden department, however the store manager informed Ellen that the Softlines Department sorely needed help in getting merchandise out on the shop floor. Ellen noticed that the Sales Clerks were at times standing behind the cash wraps with nothing to do. Ellen suggested that maybe the Sales staff could help in the retagging and restocking efforts, but she was told that there was a strict division of labor and MCAs or the Merchandise Customer Associates were in charge of those activities. The problem was that MCAs were not paid as well as the cashiers and often failed to show up for work. This left the Softlines Department with piles of returned, abandoned merchandise that failed to make it to the display racks. The customers often expressed their frustration with not being able to find clothing that they saw advertised in the circulars. Some customers were confused when they came in lured by the Lands' End brand and could not locate it anywhere in the store. The customers were not made aware that not all Sears Mall locations carried the Land's End brand.

For the next ten weeks things didn't change much. Ellen continued to be astounded by the level of apathy which her coworkers demonstrated. She was taught in her Organizational Behavior courses about such concepts as empowerment and motivation and was surprised that they were hard to come by during her management trainee days at Sears. Ellen was aware that the company is large and diverse. It employs over 300,000 people and like all retailers has been deeply affected by the

recession that has been eroding the buying power of the very consumers it has been targeting. However, Ellen was shocked when at the end of her management trainee program she was invited to a posh conference center near the Sears headquarters. During her two day retreat she met many other management trainee interns like herself from all over the country. Ellen was cautious to appear positive about her experience when asked for feedback. She wanted to minimize the fact that the detailed schedule of her twelve week internship had not been followed. Ellen also did not want to share with the crowd the fact that she had seen apathetic employees, frustrated managers and a lack of commitment to customer service. When the interim CEO and President of Sears Holdings, W. Bruce Johnson spoke to the crowd of management trainees he called them “the future of our company”. Mr. Johnson expressed the company’s commitment to excellence and changing with the times. Everyone nodded politely.

Ellen was reluctant to share her less than stellar experience with the other interns and mainly kept quiet. However, upon her return to the hotel she heard many comments from the experiences of other interns that were quite similar to hers. The young college students described the stores as outdated, disorganized and said that the personnel lacked morale. None of the management trainee program participants appreciated the great expense that Sears Holding Corporation had undertaken in order to provide them with this management training opportunity. Most of them expressed no desire to ever work for Sears in the future.

### **THE HISTORY OF SEARS**

Sears traces its rich history back to the year 1886 when Richard W. Sears founded the company based on a successful operation of selling watches. Alvah Roebuck joined the company in 1888. That year the company published its first catalog and moved its operations to Chicago. The watch selling operation was later sold and the business evolved into a diversification of offerings with strengths in its catalog and financial offerings.

Sears Roebuck and Company continued its growth, reaching sales of upwards of \$1 billion in 1945. The retailer became the icon for all who aspired for the middle class status offering products as diverse as modular homes and delighting customers with incredibly knowledgeable staff and successful private brands such as Craftsman, Kenmore, Diehard and many others.

The Sears retailing strategy has positioned the retailer at one time with the motto “Shop at Sears and Save”, then came the famous marketing campaign “The Softer Side of Sears” and the current tagline reads “Life. Well Spent”.

The tide of the retailer really seemed to turn when Wal-Mart, currently the world’s largest retailer began to successfully appeal to the same target market and aggressively continued to expand and innovate. Then, at the turn of the century came the lawsuits. The first was a lawsuit that brought negative attention to the company when Sears agreed to pay out close to \$160 million to eleven million people for violating terms agreed upon with the customers regarding interest rate increases. Other lawsuits regarding product misrepresentation followed further tarnishing the image of the retailer.

## FAST FORWARD TO TODAY...

Sears is a diverse retailer with a combination so 3,900 full line and specialty retail stores in the United States, as well as in Canada. Sears' product offerings range from home appliances, electronics, tools, lawn equipment to automotive products and services as well as the "softer side of Sears" representing health and beauty products, apparel, footwear and accessories. The Sears retail presence is also enriched by its network of commercial and sales services, as well as the Lands' End business. Sears also is using the multichannel retailing model in presenting offerings on Sears.com – a transactional website serving in lieu of the discontinued Sears catalog that made the retailer so famous.

Sears is currently run by Edward (Eddie) Lampert, who in 2005 took over the helm of Sears and merged it with Kmart. The company is currently known as Sears Holdings and its majority stake is owned controlled by ESL Investments, headed by Lampert. ESL controls around 55% of the shares of Sears holdings that currently owns a total of (Jonathan R. Laing, WSJ, August 24<sup>th</sup> 2009). Sears has been criticized for using "total return swaps", which take big risks in leveraged investments without actually having to spend the money without actually purchasing them. These "total return swaps" also carry tax benefits, make the balance sheet look good and boost the liquidity of an investment. All of the above are benefits that ESL Investments is pursuing in order to revive the value to debt ratio of the two struggling retailers: Sears and Kmart.

Eddie Lampert is seeking to diversify his strategy in the struggling world of retail by leveraging its poor performance with some savvy investments in other areas. He is also trying to introduce more efficiency by slashing slow moving inventory. Furthermore Sears has gone to great lengths to update its website. A large portion of its hard goods' sales come from the Sears website. The customer has an added convenience in using the many brick and mortar retail outlets to return and exchange products obtained via the website.

Some have criticized the new Sears management of concentrating too much on enhancing its portfolio rather than caring about the needs of their customers. Sears customer base has been getting progressively older. The retailer's image suffers with the younger consumers. One of the objectives of the management trainee program that Sears Holdings Corporation implemented was to help revive that image. Ellen sat in her retailing class wondering whether the company believed that they had successfully achieved that objective.

## SOURCES

Datamonitor (2009) Company Report sourced from EBSCO, September 7, 2009

Jannarone, J (2009). *Lampert's Strategy is Hobbling Sears*, August 24

Samus, T (2005, December 31). "A discussion of Major Lawsuits Faced by Sears, Roebuck and Co.". Retrieved August 09, 2008 from ezinearticles.com

<http://www.sears.com> Accessed on September 15, 2009.

<http://www.searsarchives.com/> Accessed on September 9, 2009.

# ACCOUNTING FOR CONSOLIDATED ENTITIES AND THE CONVERGENCE OF U.S. GAAP AND INTERNATIONAL FINANCIAL REPORTING STANDARDS

**Marianne L. James, California State University - Los Angeles**

## CASE DESCRIPTION

*The primary subject matter of this case concerns changes in accounting for consolidated entities and the convergence of International Financial Reporting Standards (IFRS) with U.S. Generally Accepted Accounting Principles (GAAP). The case focuses on the effect of the changes on financial statements of global entities, as well as strategic decisions made by company executives. Secondary, continuing significant differences between U.S. GAAP and IFRS and future potential developments in accounting for consolidated multinational entities are explored. This case has a difficulty level of three to four and can be taught in about 50 minutes. Approximately two hours of outside preparation is necessary to fully address the issues and concepts. This case can be utilized in an Advanced Accounting course, either on the graduate or undergraduate level to help students understand changes in and differences between U.S. GAAP and IFRS. Two sets of questions address U.S. GAAP and IFRS and include some researchable questions that are especially useful for a graduate level course. The case has analytical, critical thinking, conceptual, and research components and can enhance students' oral and written communication skills.*

## CASE SYNOPSIS

*Financial reporting in the U.S. is changing dramatically. Consistent with the Securities and Exchange Commission's proposed "Roadmap" (SEC, 2008), the U.S. likely will join the more than 100 nations worldwide that currently utilize International Financial Reporting Standards (IFRS), and require the use of IFRS in the U.S.*

*Because of the globally widespread use of IFRS, multinational entities with subsidiaries that prepare IFRS-based financial statements already have to be knowledgeable about IFRS as well as the current differences between U.S. GAAP and IFRS. Fortunately, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) are working together to bring about convergence between the two sets of accounting standards.*

*Recently, FASB and the IASB issued new and revised several existing standards that eliminate many differences between U.S. GAAP and IFRS with respect to business combinations and consolidated financial statements. However, some significant differences persist. Until the SEC makes a final decision regarding mandatory use of IFRS and during the proposed multi-year transition period, current and future accounting professionals must continue to keep abreast of changes in U.S. GAAP, be knowledgeable about differences between U.S. GAAP and IFRS, and, at*

*the time, prepare for the likely transition to IFRS. In addition, company executives should be cognizant of developments that may affect their strategic decisions as the U.S. moves toward a likely adoption of IFRS during the next five years.*

*This case focuses on the effect of changes in financial reporting for consolidated entities. Changes as well as continuing differences between U.S. GAAP and IFRS are explored. Secondly, strategic decisions arising from the changes and the likely future adoption of IFRS are addressed. This case, which can be utilized in Advanced Accounting on either the graduate or undergraduate level can enhance students' analytical, technical, critical thinking, research, and communication skills.*

### **KLUGEN CORPORATION - CASE \***

\* This is a fictitious case. Any similarities with real companies, individuals, and situations are solely coincidental.

Irma Kuhn, CPA, CMA holds the position of Chief Financial Officer (CFO) of Klugen Corporation, a global telecommunications company. Klugen is a consolidated entity headquartered in the U.S. with four majority-owned European subsidiaries. The company has expanded primarily by acquiring majority interests in European companies and holds between 51% and 70% of the outstanding voting stock of its subsidiaries.

Consistent with current accounting rules, Klugen consolidates all four of its subsidiaries. In addition, Klugen also holds financial interests in several unconsolidated entities and accounts for those as investments.

Klugen's European subsidiaries currently prepare their financial statements consistent with International Financial Reporting Standards (IFRS), which are promulgated by the International Accounting Standards Board (IASB). Klugen, the parent company, issues consolidated financial statements, which include the results of its majority-owned subsidiaries in conformity with U.S. GAAP. Preparation of Klugen's consolidated financial statements requires that Irma and her staff convert the subsidiaries' IFRS-based financial statements into U.S. GAAP prior to consolidating the numbers. This process is quite complex and requires many of the accounting departments' resources.

Irma is well aware of efforts between the FASB and the IASB to bring about convergence between U.S. GAAP and IFRS. She expects that consistent with the SEC's "Roadmap," (SEC, 2008) within the next five years, U.S. public companies likely will have to apply IFRS, rather than U.S. GAAP. Irma welcomes this development and believes that in the long-run, use of IFRS by the parent company as well as its subsidiaries will preserve and strengthen the company's global financial competitiveness. In addition, she believes that it will simplify the accounting and consolidation process significantly and, in the long-run, reduce financial reporting costs. She is aware, however, that in the short-run many challenges, such as conversion of the accounting and IT systems and extensive staff training will increase costs. Knowing that the SEC's Roadmap proposes a phased-in adoption by public companies between 2014 and 2016, Irma plans to recommend adoption of IFRS at the earliest permitted time.

As the person who ultimately is responsible for financial reporting, Irma is very knowledgeable about current and proposed changes in U.S. GAAP as well as IFRS. She knows that



the IASB and FASB have issued new and revised standards applicable to business combinations that affect the company's consolidated financial statements. After in depths analysis of the new and revised standards she determined that many of the past differences between U.S. GAAP and IFRS where eliminated when the FASB issues FAS 141R "Business Combinations" and FAS 160 "Non-controlling interest in consolidated financial statements" (FASB, 2007) and the IASB revised IFRS 3 "Business Combinations" and IAS 27 "Consolidated and Separate Financial Statements" (IASB, 2008). She also realizes that some significant differences still persist. Klugen Corporation has properly adopted FAS 141R and FAS 160 for the 2009 fiscal period and its forthcoming annual report will reflect those changes.

Irma regularly conducts in-house seminars to instruct her accounting staff regarding new developments in financial reporting. Since in about five (5) months, Klugen Corporation will issue its consolidated financial statements, which will, for the first time, incorporate FAS 160 and FAS 141R, Irma decides to schedule a seminar on "Business Combinations - Consolidated Financial Statements" for October 15, 2009. The seminar will be highly beneficial for staff members who are currently involved or planning to become involved in critical aspects of financial reporting and also for those who want to develop their knowledge of IFRS.

### The CPE Seminar

Irma discusses the most important changes in accounting and financial reporting for consolidated entities consistent with FAS 141R and FAS 160. She prepares a handout consisting of a comparative table that contrast the new rules (effective for the 2009 financial statements) with the prior rules for the seminar participants.

Table I  
Recent Changes to U.S. GAAP - effective 2009 - FAS 141R and FAS 160

Issue	Effective 2009 Financial Statements	Pre-2009 Financial Statements
Subsidiaries' assets and liabilities	Are fully revalued to fair market value at acquisition date.	Revalued based on the percentage ownership of the parent company.
Negative goodwill	Recognized as gain during the year of acquisition.	Recognized as a proportionate reduction of long-term assets
Balance sheet classification of non-controlling interest (NCI)	NCI is classified as equity.	NCI was recognized as liability, equity, or between liabilities and equity.
Income statement presentation of NCI's share of income	Presented as a separate deduction from consolidated income to derive income to controlling stockholders.	NCI was presented as part of "Other income, expenses, gains & losses"
NCI valuation	Is carried at fair market value of subsidiaries' net assets, multiplied by the NCI percentage.	Carried at book value of subsidiaries' net assets, multiplied by NCI percentage.

Issue	Effective 2009 Financial Statements	Pre-2009 Financial Statements
Cost of business combinations	Direct costs are expensed immediately.	Direct costs were capitalized as part of acquisition cost.
In process R&D	Is capitalized at time of acquisition	Could be expensed at time of acquisition
Acquisition in Stages	Previously acquired equity interest is remeasured when acquiring company achieves control; gain or loss is recognized in income statements.	Measurement was based on values at time of individual equity acquisition.

Next, Irma highlights continuing significant differences between U.S. GAAP and IFRS. This information is particularly important for staff involved in the consolidation process and also for staff who wish to prepare for the future adoption of IFRS. The following table represents a handout based on Irma's PowerPoint presentation:

Table II  
Summary of Differences Between U.S. GAAP and IFRS

Issue	U.S. GAAP	IFRS
Definition of control	Defined as “controlling financial interest” usually interpreted as majority voting interest.	focuses on the “power to govern financial and operating policies” (IFRS 3, 19)
Shares considered for determining control	Only existing voting rights	May include exercisable shares
Calculation of non-controlling interest	Non-controlling interest is measured at fair value of total net assets.	Choice between (1) fair value and (2) proportionate share of fair value of identifiable net assets.
Contingent assets and liabilities - initial measurement	Contractual contingent assets or liabilities at fair market value Non-contractual contingent assets and liabilities that meet ‘more likely than not test’ are accounted for consistent with SFAC 6	Recognition of contingent liability assumed at acquisition date if: Present obligation arises from past event and is reliably measured Contingent liability is recognized even if it does not meet the ‘probable’ test.
Calculation of goodwill at time of acquisition	Goodwill (if it exists) also includes share attributed to NCI.	If second option is chosen, goodwill is only attributed to controlling interest (i.e., parent).

Issue	U.S. GAAP	IFRS
Goodwill impairment test	Two-step approach: (1) Compare book value of reporting unit to fair market value. If book value is larger, impairment is measured as book value less implied fair value of goodwill implied fair value.	One-step approach Compare book value to larger of cash generating unit's (a) fair value less selling cost and (b) value in use.

At the end of the seminar, many questions arise from the staff and some from the CEO, who attended the second half of the seminar. Irma answers as many questions as possible and promises to provide a short question/answer briefing sheet to all those who were present. During the seminar she summarizes the following questions as shown in the assignments section of the case.

### ASSIGNMENTS

#### U.S. GAAP Questions:

1. How will adoption of the new accounting standards (FAS 141R and FAS 160) affect Klugen Corporation's financial statements in (a) the forthcoming reporting period and the (b) long-run?
2. What key financial ratios will be affected by FAS 141R and FAS 160? What will be the likely effect?
3. What additional estimates have to be made consistent with the new accounting standards?
4. Could any of the recent changes affect the company's acquisition strategies and potentially its growth?
5. What were FASB's primary reasons for issuing FAS 141R and FAS 160? (Research question)
6. FASB and IASB issued an updated memorandum of understanding. Retrieve the memorandum and identify several issues that the two standard setting boards are jointly focusing on. (Research question).

#### IFRS Questions:

1. From the consolidation perspective, what would be the likely overall effect of adopting IFRS on the company's financial statements?
2. What potential effect would arise if Klugen were to select the option under IFRS 3 to value non-controlling interest at the proportionate share of its subsidiaries' net identifiable assets?
3. Do you believe that an impairment of goodwill would be more likely under IFRS or under U.S. GAAP? Why, or why not?
4. What opportunities and challenges would arise for the accounting staff if the company adopts IFRS?
5. As indicated in the case, Irma previously highlighted some other significant differences between IFRS and U.S. GAAP. Research the issue and find three (3) differences, other than those related to business combinations.

6. Assume that the SEC provides a choice in the timing of adoption of IFRS. What ethical issues could arise for the CFO in deciding when to adopt IFRS. (Research question)
7. Review comment letters received by the SEC regarding its Roadmap (available at [www.sec.gov](http://www.sec.gov)). List two concerns mentioned by those offering comments. (Research question)

## **REFERENCES**

- Financial Accounting Standards Board (2007, December). FASB Statement No. 160. Non-Controlling Interest in Consolidated Financial Statement. Retrieved on January 5, 2008, from <http://www.fasb.org>.
- Financial Accounting Standards Board (2007, December). FASB Statement No. 141R. Business Combinations. Retrieved on January 5, 2008, from <http://www.fasb.org>.
- International Accounting Standards Board. (2008). International Financial Reporting Standard No. 3. Business Combinations. London, England: IASB.
- International Accounting Standards Board. (2008). International Accounting Standard No. 27. Consolidated and Separate Financial Statements. London, England: IASB.
- Securities and Exchange Commission (2008). Roadmap for the Potential Use of Financial Statements Prepared in Accordance With International Financial Reporting Standards by U.S. Issuers. Other Release No.: 3458960; File No. S7-27-08, November 2008. Retrieved on November 29, 2008, from <http://www.sec.gov>.

# THE LOSS OF LIFO AND ITS POTENTIAL IMPLICATIONS FOR COMPANY FUNDING OPPORTUNITIES

**Kurt R. Jesswein, Sam Houston State University**

## CASE DESCRIPTION

*This case requires the student to examine how a significant change in accounting principle will likely affect the financial condition and future funding situation of Thiel Machinery. Specifically, the student will look at how the probable abolition of the LIFO inventory costing method (as the U.S. moves towards acceptance of the International Financial Reporting Standard) will affect various financial ratios of the company, most notably the Altman Z-score. The student must make pro forma adjustments to the company's existing financial statements that account for the elimination of LIFO and calculate the expected change in the Z-score. Because the company is currently privately-held, the student will also need to estimate the market value of the company's equity using a free cash flow valuation model and examine how reduced cash flows from higher tax payments affect not only financial ratio calculations but potentially the value of the company itself.*

## CASE SYNOPSIS

*Thiel Machinery, a successfully growing machinery company, is grappling with the potential impact of losing the ability of using LIFO costing methods on its current and future funding sources. The student is placed in the role of a recently-hired assistant to the president and founder of the company. The student is charged with providing an analysis and summary report of the likely implications for the company's current financing situation and its upcoming stock issue.*

# **BRIDGING THE GENERATIONAL GAP BETWEEN “SENIORS” AND “BABY BOOMERS”: THE SUCCESS OF VIAGRA’S PROMOTIONAL STRATEGIES**

**Virginie Khare, University of Tampa  
Karen Popovich, St Michael's College, Vermont  
Dan Kaufman, University of Tampa**

## **ABSTRACT**

*How can companies bridge generational gaps, especially in cases where product customization is not possible? Viagra is a great example of how Pfizer modified its promotion strategies to target different generational groups. When Pfizer first came out with the drug in the late 1990s, its primary target market (males 50 and above) were mostly from the mature market. Since then, however, Pfizer has had to redirect its communications towards the baby boomer generation, a group of consumers who, unlike their elders, have been found to be more self-centered, individualistic, economically optimistic, skeptical, suspicious of authority, and focused on the present. This was accomplished mostly through superior targeted strategies in advertising, sponsorships, and public relations. Essential to these strategies were also their choice of the right spokespeople to appeal to the desired generations. This case reviews Viagra's communication strategies from its initial release under the endorsement of Bob Dole, to today's sponsorships of NASCAR and the MLB. Advertising themes and styles are also compared and their appeal to such different generational groups.*

## ST. LOUIS CHEMICAL: COST OF CAPITAL

**David A. Kunz, Southeast Missouri State University**  
**Benjamin L. Dow III, Southeast Missouri State University**

### CASE DESCRIPTION

*The primary subject matter of this case concerns the issues surrounding a firm's weighted average cost of capital (WACC). Case provides a review of cost of capital issues. The case requires students to have knowledge of accounting and finance, thus the case has a difficulty level of three (junior level) or higher. The case is designed to be taught in one class session of approximately 1.25 hours and is expected to require 2-3 hours of preparation time from the students.*

### CASE SYNOPSIS

*The case tells the story of Don Williams, President and primary owner of St. Louis Chemical. By most measures, the performance of St. Louis Chemical has been very good over the last three years, with sales and income increasing each year. Business growth has been steady but a recent increase in demand has placed a strain on existing operations. To keep pace with demand, the capacity of the current warehouse and packaging operations need to be increased. The cost of the facility expansion has been estimated to be \$900,000 by St. Louis Chemical's operation manager.*

*Since beginning operations, Williams has been reluctant to borrow funds. He has been content with limited growth, financed with internally generated equity.*

*Recently hired Edison Hesselbach, the company's first finance professional, has recommended borrowing the required funds. Williams indicated he may be willing to consider a change in his long-standing policy against debt, but wants more information regarding using debt in the firm's capital structure.*

### BACKGROUND

St. Louis Chemical is a relatively new regional distributor of liquid and dry chemicals, headquartered in St. Louis, Missouri. The company, founded by Don Williams, has been serving primarily eastern Missouri and western Illinois for four years and has developed a reputation as a reliable supplier of industrial chemicals. Williams' previous business experience provided him with a solid understanding of the chemical industry and the distribution process. As a general manager for a chemical manufacturer, he had profit and loss (P&L) responsibility, but until beginning St. Louis Chemical, he had limited exposure to company accounting and finance decisions.

The company reported small losses during its early years of operation, but performance in recent years has been very good. Sales have grown, new product lines have been added and reported profits have been steadily increasing. The growth has required the acquisition of additional land, equipment, expansion of storage capacity and an increase in work force. Williams has proven to

be an expert marketer, and St. Louis Chemical has developed a reputation with its customers of providing quality products and superior service at competitive prices.

Despite its business success, St. Louis Chemical is still a "large" small business with Williams making all important decisions. He recognized the need to develop a professional managerial staff, particularly in the area of finance. Recently, he hired Edison Hesselbach as the company's first finance professional and placed him in charge of the company's accounting and finance activities.

St. Louis Chemical's board of directors is composed of Williams, his father and the company's attorney. The board's existence satisfies state regulatory requirements for corporations but provides little, if any, input to business operations.

### **CHEMICAL DISTRIBUTION**

A chemical distributor is a wholesaler. Operations may vary but a typical distributor purchases chemicals in large quantities (bulk - barge, rail or truckloads) from a number of manufacturers. They store bulk chemicals in "tank farms", a number of tanks located in areas surrounded by dikes. The tanks can receive and ship materials from all modes of transportation. Packaged chemicals are stored in a warehouse. Other distributor activities include blending, repackaging, and shipping in smaller quantities (less than truckload, tote tanks, 55-gallon drums, and other smaller package sizes) to meet the needs of a variety of industrial users. In addition to the tank farm and warehouse, a distributor needs access to specialized delivery equipment (specialized truck transports, and tank rail cars) to meet the handling requirements of different chemicals. A distributor adds value by supplying its customers with the chemicals they need, in the quantities they desire, when they need them. This requires maintaining a sizable inventory and operating efficiently. Distributors usually operate on very thin profit margins. RMA Annual Statement Studies indicates "profit before taxes as a percentage of sales" for Wholesalers - Chemicals and Allied Products (Standard Industrial Code Number 5169) is usually in the 3.0% range.

In addition to operating efficiently, a successful distributor will possess 1) a solid customer base and 2) supplier contacts and contracts which will ensure a complete product line is available at competitive prices.

### **THE SITUATION**

Because of his lack of finance expertise and his desire to maintain St. Louis Chemical's annual dividend, Williams has taken a conservative approach to growing the business, avoiding any action perceived as potentially risky. Capital expenditures have been tightly controlled, and this has, at times, restricted St. Louis Chemical's ability to take advantage of growth opportunities. Business growth has been steady but a recent increase in demand has placed a strain on existing operations. To keep pace with demand, the capacity of the current warehouse and packaging operations need to be increased. The cost of the facility expansion has been estimated to be \$900,000 by St. Louis Chemical's operation manager.

In addition to avoiding risky capital expenditures, Williams has also followed a conservative financing policy. Since beginning operations, he has been reluctant to borrow funds, content with



limited growth, financed with internally generated equity. The only long-term debt on the company's balance sheet reflects vehicle financing. If the facility is to be expanded, additional external financing will be necessary and the current shareholders are reluctant to invest additional funds.

Hesselbach, using input from an investment-banking firm, has estimated the company's cost of equity to be 14%. A St. Louis bank has indicated a long-term bank loan can be arranged to finance expansion at an annual interest rate of 10%. The bank would require either loan to be secured with expansion and other company assets. The loan agreement would also include a number of restrictive covenants, including a limitation of dividends while the loans are outstanding. Only a small amount of long-term debt is included in the firm's current capital structure, the firm's debt ratio at the end of 2009 was 21% and long-term debt was only .28% of total assets. Hesselbach calculated that if a long-term bank loan was used to obtain the needed \$900,000, the firm's debt ratio would increase to 30%. He believes a 30% debt and 70% equity capital mix would be conservative and a starting point for introducing long-term debt into the firm's capital structure. Last year the company's federal-plus-state income tax rate was 35%. Hesselbach does not expect the income tax rate to change in the foreseeable future.

Hesselbach has recommended borrowing the required funds. Williams indicated he may be willing to consider a change in his long-standing policy against debt, but wants more information regarding the advantages and disadvantages of using debt in the firm's capital structure.

### THE TASK

Assume the role of Hesselbach to answer the following questions.

- 1) Prepare a presentation for Williams regarding the concept of a firm's weighted average cost of capital (WACC).
- 2) Calculate St. Louis Chemical's WACC using a 30% debt and 70% equity capital structure.
- 3) Recalculate St. Louis Chemical's WACC (round to the nearest whole number) using a 40% debt and 60% equity capital structure.
- 4) Explain the difference between your answer to questions 2 and 3.
- 5) What arguments should be made to convince the Williams of the advantage of using long-term debt in the firm's capital structure? What are the disadvantages?
- 6) Explain why an accurate WACC is important to a firm's long-term success.

### REFERENCES

Brigham, Eugene and Joel Houston, *"Fundamentals of Financial Management,"* Concise 6<sup>th</sup> edition, Thomson South-Western, a part of the Thomson Corporation, 2009.

Brigham, Eugene, and Michael Ehrhardt, *"Financial Management: Theory and Practice,"* 12<sup>th</sup> edition, Thomson South-Western, a part of the Thomson Corporation, 2008.

## **McPHERSON MANUFACTURING COMPANY**

**Patricia LaPoint, McMurry University**  
**Carrol Haggard, Fort Hays State University**

### **CASE DESCRIPTION**

*The primary subject matter of this case concerns operations management. The case can be used to explore the important connection between sales and operational decisions in an operations management course. Students are asked to analyze data in order to determine whether models should be retained or eliminated. The case has a difficulty level of four. The case is designed to be taught in two class hours and is expected to require 8-10 hours of outside preparation by students.*

### **CASE SYNOPSIS**

*As Brian McPherson gazed out of his corner-office window he reflected on the changes to his family's business. The family business was started in 1857 by his great, great, great grandfather, Cyrus McPherson. Cyrus McPherson had made his presence known in every aspect of the early company's business. He could be seen on the production floor examining parts, giving orders to operators on how to set up the equipment, and holding the reins of a horse-driven cart to distribute sewing machines to his customers. The elder McPherson was a demanding tyrant with an unyielding perseverance to insure that the family business grew and survived for future generations of McPherson's.*

*Today, McPherson produces six models of sewing machines: a basic model and five specialty models each with its own dedicated production assembly line. While the growth potential for each model varies, all of the models require significant promotional efforts. In some cases, models need to be redesigned in order to become more competitive. Three models operate at 75-80% of capacity, one at 30-35%, while two models operate at 15-20% of their capacity.*

*As Brian reflected on his heritage, he knew that he must continue this family tradition for the generations of McPherson's to come. However, he also knew that the 21st century environment was significantly different than that the Cyrus' day. Brian was wrestling with such questions as: Should the company continue to produce all six models? Should some models be eliminated or consolidated with other models in production? When would issues of capacity force a decision about possible changes? Brian knew that his answers to these questions would determine whether McPherson Manufacturing Company remained viable for future generations.*

### **McPHERSON MANUFACTURING COMPANY**

Brian McPherson gazed from his corner-office window overlooking the Charles River and reflected on the changes to his family's business. The historic red-bricked building built in 1857 by his great, great, great grandfather, Cyrus McPherson, was one of Boston's most distinctive

landmarks. Currently, the building houses the corporate headquarters of McPherson Manufacturing Company, one of the major sewing machine manufacturers in the country and the center of the company's manufacturing operations. Cyrus McPherson, an immigrant Scotsman, made his presence known in every aspect of the early company's business. He could be seen on the production floor examining sewing machine parts, giving orders to his operators on how to set up the equipment, and holding the reins of a horse-driven cart to distribute sewing machines to his customers in the hot summers and cold winters of New England. The elder McPherson was a demanding tyrant with an unyielding perseverance to insure that the family business grew and survived for future generations of McPherson's. As Brian reflected on his heritage, he knew that he must continue this family tradition for the generations of McPherson's to come. However, he also knew that the 21st century environment was significantly different than that the Cyrus' day.

**The Global Industry:** For the first half of the 20th century, sewing machine sales were steadily increasing in the United States; the latter half of the 20th century, sales remained relatively flat. However, the reverse of this trend in the second half of the 20th century for overseas markets saw a significant increase in sales specifically in the Asian-Pacific region. Led by a strong growth in Japan and subsequently China in 1998, the exports of Japanese and Chinese sewing machines superseded that of the United States. The major competitor in the United States is Singer, while SVP Worldwide is the global leader in all product categories.

Historically, global price increases range from 3%-5% on the high end products and 5%-10% on the low-end products. These global prices increases are due to the increases in costs for energy, raw materials, packaging, transportation, labor and currency exchange fluctuations. SVP Worldwide, the global leader of sewing machines reports on their website "tightening credit markets and consumer postponement have combined to cause a ripple effect that has reached the global sewing machine industry. Typically, the sewing, quilting, and embroidery markets have been relatively immune to recessionary periods, however, it is not the case with this current recession and is possibly the beginning of a protracted period of substantial contraction" (SVP Worldwide, 2008). However, according to Consumersearch (2009, May) "sewing is making a comeback, owing to the reality show hit "Project Runway" and the trend toward DIY crafting. The economy may also be influencing more people to try sewing and mending their clothing."

**Sales and Marketing:** For the past 10 years, the sales of McPherson's sewing machines averaged about 100,000 units per year [See Table 1]. The distribution of company sales in the United States and overseas markets currently is 80% and 20% respectively. The product line mix consists of 6 different products: Model A (basic model, lower cost, less product features); 3 specialty models (B, C, and D); and Products E and F (both are the most expensive and have the most features). Models A, B, C, and D are expected to be most popular and have the highest demand. Models E and F, on the other hand, are expected to have limited demand. While the growth potential for each model varies, all of the models require significant promotional efforts. In some cases, models need to be redesigned in order to become more competitive.

**Model A [Basic Model]:** standard line, starter model, best seller at 30% current domestic sales; potential for significant growth if promoted sufficiently to highlight its distinctiveness in overseas markets, specifically the home market; limited growth in domestic market; promotion should focus on creating an awareness of the product to penetrate the overseas markets.

Model B [specialty model]: good seller; needs promotion and redesign to become more competitive; currently 28% of sales; potential for significant growth.

Model C [specialty model]: relatively new product (5 years); requires a substantial marketing effort by a more experienced marketing manager to achieve product awareness; currently 11% of sales; potential growth possible.

Model D [specialty model]: a version of the basic model for a niche segment of the specialized commercial markets; possible expansion but would require significantly more resources; 25% of current sales.

Model E [specialty model]: one of the oldest products in the portfolio; perceived as outdated and stodgy; receives very little attention by sales personnel; redesign could make this product more attractive to customers; this model is often used as a "hook" that draws customers who may then switch to Models B or C for actual purchase; 3% of current sales; potential for some growth.

Model F [specialty line]: little marketing activity; high cost to manufacture; limited growth in domestic market only; considered by some top managers as a "staple line;" 2% of current sales; considered the most vulnerable of the 6 products.

Production: All production occurs in a single location in western Massachusetts. The rated capacity of this plant is 95%; Models A, B, and D operate at 75-80% of capacity, Model C is operating at 30-35% of capacity, while Models E and F operate at 15-20% of their capacity. Rated production capacity for each product is based on the 2008 sales data. Each product has its own dedicated production assembly line. The only compatibility of production capability with minor equipment changes is production lines A, E, and F. All other production lines (B, C, and D) are unique in the production of their respective products. The manager of the "E" production line is a long-term employee. The "F" production line is headed by a new employee who shows signs of bringing new ideas and methods to the slate of methods used in the past. Growth in the "F" production line is the manager's goal, and efforts are being made to increase domestic sales and some promotional activities have already taken place. It is possible, however, that a capital investment of \$50,000-\$100,000 for changeover parts and employee retraining could enable the consolidation of some of the 6 lines. If some of the lines were consolidated, the challenge to production management would be developing feasible production schedules both aggregate and short-term and managing inventory levels and costs.

To changeover or set up a production line it takes 10 workers per line. The compensation for the production workers is \$16 per hour and benefits are a factor of 1.3. Each line changeover takes approximately 2 hours to complete. Inventory holding costs average \$.60 per unit.

As Brian finished his reflection of the storied history of the McPherson clan and the company intimately associated with his family, he began to turn his attention to the future of the company. Brian pondered whether McPherson Manufacturing Company should change to meet the challenges of the 21st century, and if so, how? He knew that he would have to make difficult decisions as to whether the company should produce all 6 models in the future or eliminate some products and if so which one(s)?

Table 1 Sales Data for Each Product for Years 2000-2009							
Year/Product	A	B	C	D	E	F	TOTAL
2000	19,000	18,000	5,000	17,000	2,000	1,200	62,200
2001	18,000	20,000	6,000	15,000	2,000	1,200	62,200
2002	20,000	21,000	5,000	20,000	2,400	1,200	69,600
2003	20,000	20,000	6,000	18,000	2,000	1,000	67,000
2004	22,000	25,000	6,000	20,000	2,000	1,400	76,400
2005	20,000	16,000	7,000	20,000	2,100	1,400	76,500
2006	28,000	26,000	8,000	23,000	2,500	1,500	89,000
2007	25,000	25,000	7,000	25,000	2,000	2,000	86,000
2008	25,000	25,000	10,000	24,000	3,000	2,000	89,000
2009	30,000	28,000	11,000	25,000	3,000	2,000	100,000
TOTAL	227,000	234,000	71,000	207,000	23,000	13,900	

Source: McPherson Manufacturing Company Sales Department

## **ACTIVE INSURANCE, INC.**

**John Leaptrott, Georgia Southern University**  
**J. Michael McDonald, Georgia Southern University**  
**William McCartney, Georgia Southern University**

### **CASE SYNOPSIS**

*Jeff Ryan, owner of Active Insurance, Inc., is facing an important decision concerning the future growth of his business. Ward Stevens, the owner of Ward Stevens Insurance agency, is considering retirement has talked to several individuals, including Jeff, about acquiring his company. Jeff has discussed the possible acquisition with his accountant and together they have several concerns about the potential transaction.*

*Jeff's primary concern is the difference in the business models used by the two companies. Jeff started Active Insurance ten years ago and the agency has grown steadily to the point that it currently employs fifteen agents. Jeff has worked hard to make Active Insurance a customer-oriented firm and has established policies that make it easy for customers to visit his office and to access products and services. Additionally, Jeff uses agency management software and has implemented several innovative personnel policies that he believes are key to his success. Jeff is committed to training and development and is proud of the fact that he has taken a progressive approach to managing his business.*

*On the other hand, the Stevens agency is a more traditional, slow changing company. The company is well established, with eighteen agents who operate with a great deal of autonomy. However, the agency has not grown materially for a number of years. Mr. Stevens has not updated his operational or personnel practices since he started the firm and does not get involved in the day-to-day functions of the agency. Customer service, employee training and outside financial advisors all receive low priority from Mr. Stevens. His management philosophy is "if it isn't broke, don't fix it".*

*So Jeff has to decide. Does he make the acquisition and deal with the operational and cultural differences in the two firms or does he forget the acquisition and focus on internal growth?*

# **CHIROPRACTIC MARKETING: MARKET SEGMENTATION & GROWTH STRATEGY**

**Jeanny Y. Liu, University of La Verne**  
**Stephanie N. Van Ginkel, University of La Verne**

## **CASE DESCRIPTION**

*The primary subject matter of this case concerns changing trends within the chiropractic industry in which the Segmentation-Targeting-Positioning (STP) process becomes the main emphasis for understanding consumer behavior as well as assessing markets. Secondary issues examined include: competitive advantage, differentiation, social trends, and consumer behavior. The case has a difficulty level appropriate for senior level. The case is designed to be taught in two (2) class hours and is expected to require three (3) hours of outside preparation by students.*

## **CASE SYNOPSIS**

*In January 2008, Roseville Chiropractic changed its name to Roseville Family Chiropractic (RFC) to provide a more family-oriented chiropractic and health wellness appeal in an uprising, metropolitan area of Sacramento, California. Being in practice for close to 10 years, RFC's stifling growth brought about a need for rethinking the marketing strategy. High volumes of competition are beginning to encroach on the market and RFC is in need of differentiating its services in order to secure their market share. Kevin Sherwood, RFC's current Director of Marketing, is looking to discover the environmental and behavioral changes of its consumers as well as identify potential target markets for future sustainability. Based on the researched information, he is expected to recommend segmentation, positioning, and communication strategies to the partners of the practice.*

*The following case study provides a thorough look for discussion of the chiropractic industry, a niche, but fragmented industry that is interesting to explore. It emphasizes and explores STP concepts that are essential for entrepreneurial and marketing students to understand in order to be competitive in today's markets. This study includes the major marketing concepts arising within study today, such as: consumer behavior and social trends among different generations, traditional marketing converging on digital and social networking techniques, the need for strategic repositioning to attract new markets, and the development of differentiating elements in order to assist in sustaining market share.*

## **INTRODUCTION**

Kevin Sherwood has been assisting his wife, Jennifer Cox, with her chiropractic practice doing various tasks from marketing to management since opening its doors in 1999. In 2008, the practice added "Family" to the original Roseville Chiropractic name in an effort to increase patient awareness on adopting chiropractic care for the entire family. Also occurring in 2008, one of the

practitioners left the practice, leaving only Dr. Jennifer Cox and Dr. Juli Rodrigues as the lead chiropractors available for patient care, in which they now emphasized as one of the few practices regionally that had multiple and only female practitioners. However, this was not the first time that a practitioner had left the practice. Frustration, inefficiencies, and loss of revenue continued to build with a negative aura among the staff and confusion among the patients as to the type of services that were offered in the practice. Both practitioners agreed that after the last practitioner left, it should be only themselves in the partnership and re-branding of the practice along with Kevin's help to build-up the practice. (Sherwood, 2009)

When Kevin started working full-time for the practice, he began to do a number of tasks from suggesting new ways to increase productivity and visibility to developing a general marketing strategy for the practice. Kevin also began to think of all the redundancies and inefficiencies there were in the current marketing plan. He realized nothing was ever marketed "jointly" or cohesively among the practitioners. He also knew to compete among the industry competition locally and regionally, he would have to reintroduce the practice to the current target market and determine which additional or potential target markets to reach out to. Kevin also had to provide realistic segmentations of the current and potential new markets as well as determine the need for repositioning the practice in order to stay competitive for future growth. A new marketing strategy was needed immediately to show the practice's differentiation qualities in order to sustain it above the competition as well as capture new market share. (Sherwood, 2009)

## **THE CHIROPRACTIC INDUSTRY**

"Chiropractic is the largest, most regulated, and best recognized of the complementary and alternative medicine (CAM) professions. It is the third largest doctoral-level health care profession after medicine and dentistry" (American Chiropractic Association, 2008). The chiropractic industry has been considered as an alternative treatment to those with disorders of the spine, pelvis, and joints (Weeks, 2005). According to the Association of Chiropractic Colleges (1996), "the purpose of chiropractic is to optimize health" and "...is a health care discipline which emphasizes the inherent recuperative power of the body to heal itself without the use of drugs or surgery". In 2006, there were 53,000 chiropractors employed in the US with a 14 percent change expected by 2016, in which 60,000 chiropractors are expected to be employed; a change that is faster than any other occupational average (Bureau of Labor Statistics, 2007). Of all alternative medicine services, which include chiropractic care, there is a projected growth of 88 percent between 1994 and 2010 - which is 72 percent higher than the expected growth of physician care during the same period (Stevens, Mansfield, & Loudon, 2005).

The overall industry is considered a niche industry at best, however, it is a growing one due to the physical demands many have in their daily lives as well as a distinction of a wellness need to many. To show this growth, "in 2002, approximately 7.4 percent of the population used chiropractic care - a higher percentage than yoga, massage, acupuncture or other diet-based therapies" (The American Chiropractic Association, 2008). Chiropractors do not just focus "...on disorders of the musculoskeletal system and the nervous system, and the effects of these disorders on general health," but "more than 40 [percent] of chiropractic patient visits were initiated for the purposes of



health enhancement and/or disease prevention" (American Chiropractic Association, 2008; Painter DC, 2008).

There are many perceptions of chiropractors and of the overall industry, negative and positive. Chiropractors see themselves as "...qualified as primary care providers...", although patients do not always match this perception, therefore, affecting practice success (Foundation for Chiropractic Education and Research, 2007). A study completed in 2005 showed that when asking a group of 250 non- and practicing consumers of chiropractic care whether chiropractors were a part of the medical profession or not, 79 percent felt chiropractors were and 91 percent felt chiropractors were not (Stevens, Mansfield, & Loudon, 2005). In addition, not all patients know exactly what chiropractors specifically practice. In a research survey conducted, 1-in-5 saw chiropractors as dealing with ailments not specific to their training, such as broken bones and blood disorders. Some even saw a chiropractor's training as being combined with such direct practices as reflexology, chiropody, and acupuncture (Carluccio, Norton, & Vasickova, 2004).

### **PATIENT'S (CONSUMER) BEHAVIOR**

Traditionally, the medical industry has been based upon the face-to-face interaction of the physician-patient relationship. However, "interactions between doctors and patients are inherently complex, and events in recent years have further compounded these relationships...[and] the Internet and related technologies [has added] to an already labyrinthine doctor-patient relationship" (Friedewald, 2000). Patients have now become "empowered" by utilizing the Internet for their instant gratification of information by knowing what potentially could be ailing them, how to cure it, and other alternatives, now available 24-7 without waiting in an office. "Inevitably, the most important Internet-generated change in the physician-patient relationship will be the reduced need for face-to-face contact (Friedewald, 2000). The chiropractic industry is just as affected by this increasing social relationship trend. With chiropractic as an alternative medicine, this trend is also an advantage for tech-savvy practices to shift elements of their marketing strategy to the Internet to capture the market looking for alternatives to traditional managed care.

Social trends change constantly, challenging businesses in all industries to stay abreast of consumer behavior changes in order to stay competitive. The observable trend in medical businesses is the development of hybrid-practices that not only have traditional care, but also combine alternative or luxury-based care, i.e. plastic surgery, holistic care, massage therapy. This trend is not recent and has been developing for almost two decades, with "...the horizontal and vertical integration between health care facilities. Combining practices of complementary or different specialties can centralize a large number of needed services and provide customer convenience - a golden rule in service marketing" (Hanna, Kizilbash, & Wagle, 1991). Chiropractors are seeing this trend and beginning to capture it by not only offering the traditional services, but instituting wellness and alternative health prevention services as well. "Keeping up with a market driven by client demand keeps business owners on their toes" (Travis, 2006).

## **PATIENT PROFILE**

According to statistics from the National Board of Chiropractic Examiners (2005), most patients who seek chiropractic care had chief complaints of pain in the low back/pelvis (23.6 percent), neck (18.7 percent), headache/facial (12 percent), and mid-back (11.5 percent). Approximately 20 million Americans use chiropractic services each year and spend at least \$50 billion per year on back pain (Homola, 2000; American Chiropractic Association, 1994). Of chiropractic patients, 60 percent are female, 56.7 percent are Caucasian, and 66 percent have graduated or attended college (NBCE Publications, 2005; MPA Media, 2009). In a research study, people indicated that they do not use chiropractic treatment because they believed that chiropractic treatment was ineffective, produced negative side effects, and/or practitioners were not available in accessible locations (Astin & Jain, 2001). Additionally, the study further indicated that the people who are less likely to use complementary alternative treatments (CAM), which include acupuncture, physical therapy, herbal remedies, and chiropractic care, are more likely to be male, in good health, believe therapies are ineffective or inferior, and do not have adequate knowledge of CAM.

The demographics of RFC's patients are lifestyles of desk-bearing jobs that are of a typical 8:00 am to 5:00 pm schedule to multi-tasking mothers who are highly active with their children. Many of these patients come to RFC due to stress, concerns about their health, fatigue, overwork, and pain. The chief complaint is pain, in order of frequency: headache, low back, neck, injury-related (car, personal, recreation, and work) and pregnancy; these cases are the most often seen. The average RFC patient is a Caucasian, female, 30 to 54-years-old, married, working in a professional/technical status, earning \$30,001 to \$50,000 annually, and having chiropractic care often at approximately 6 to 10 times per month. (Roseville Family Chiropractic, 2008)

## **SERVICES PROVIDED BY ROSEVILLE FAMILY CHIROPRACTIC**

A variety of services and treatments are offered for a wide range of patients by RFC. This includes primary and adjunctive chiropractic therapy. In addition, RFC offers services such as major insurance carriers for patient utilization, referrals, secondary evaluations, and Foot Levelers products. One of their major offerings is their in-practice wellness boutique that allows patients to learn more about and utilize simple tools for better personal wellness as well as products that aid in their consistent wellness while they are at home, work, and/or play. (Roseville Family Chiropractic, 2008)

RFC also creates a specific ambiance among all its patients with the objective of becoming a part of the overall family's wellness from grandparents to children. This is done not only through the comradely within the office during patient visits, but the communication and community involvement outside of the office with participation in city events to sending messages to patients for special events. RFC does not just want to be another "medical visit", but rather a family outing that improves the wellness of each person throughout their life. (Roseville Family Chiropractic, 2009)

## ADVERTISING AND PROMOTIONS

Current advertising for RFC consists of local yellow pages, a website via a third-party hosted and designed website, a newsletter subscription that is given to all walk-in patients, a monthly events calendar available for all patients, and raffles. Word-of-mouth and patient referrals are a large source of marketing promotions as well. Coupons, free initial examinations, and trade shows are of the highest preferred method of sales promotions. A limited budget hampers major marketing and sales promotions as well as additional advertising opportunities. RFC measures their success through revenues received and tracked on their specialized client database and billing system. (Roseville Family Chiropractic, 2008)

RFC also holds and participates in many community events for their patients, such as Downtown Tuesday Nights, \$20 Tuesdays, and Walking Wednesdays. Weekly and monthly themes are developed for their patients with certain days having specific discounts for specific segmented markets, i.e. 55 and older. RFC utilizes such practices in order to provide a sense of community not only with their current patient-base, but also within the community they provide a service to, a means of "giving back". (Roseville Family Chiropractic, 2008)

## COMPETITIVE ANALYSIS

In addition to the increase competition from local competitors, RFC also faces threats from acupuncturists and massage therapists, which are growth venues for chiropractors in today's market. Approximately 85 percent of chiropractors provide massage therapy sessions directly or through certified massage therapists while 20 percent perform acupuncture and other related techniques. Acupuncture treatments are utilized for many disorders, such as fibromyalgia, headache, and some chronic musculoskeletal syndromes. Natural products, as well as the use of homeopathic products within the practice, such as herbals, vitamins, and food supplements, are also growing. Although it may be reasonable for chiropractors to seek various methods in alternative medicine, there is a danger for chiropractors in moving too far from their core knowledge. (Cooper & Heather, 2003)

The major competitors around RFC offer not only basic chiropractic care, but also specialty services that may give them a competitive advantage among target markets that RFC is attempting to capture. One such practice offers cellular detoxification and the latest technology in spinal correction in a rehab setting (Chiropractic Health Centre, 2009). Another practice offers six specialty massage treatments by a certified therapist while a chiropractic clinic offers physiological therapeutic services, such as ultrasound and cryotherapy (Zawada Chiropractic, 2008; Jennings Chiropractic Neurology Clinic, Inc, 2009).

## CRITICAL DECISIONS

Being in practice for close to 10 years, RFC's growth has developed a need for a comprehensive marketing plan in order to: gain a stronger presence in their main target market, expand to new markets, and build healthier revenue generation. With high volumes of competition encroaching, RFC is in need of bringing out all their competitive advantages. Timing was crucial

and focus on the right marketing tools was needed. Kevin knew digital advertising and Internet presence was the future for business success, but unknown for RFC. Social trends within the medical industry, specific to wellness prevention, were expanding as traditional service-only business plans were decreasing. The need to expand to new markets was an important element for RFC. This was due to potentially repositioning the practice while utilizing differentiated services that would allow RFC to stay highly competitive among the market. If the right opportunities were not executed at the right time with weaknesses solved, any strengths would soon weaken and the threats would supersede their goals. Competition would continue to strengthen around them and their patient-base would diminish.

Kevin began to gather all the relevant information and prepared to make recommendations. He wanted to explore other target markets in order to build the patient-base, while both practitioners were seeking to re-brand the practice and accentuate the "family" appeal. He understood that their marketing budget was limited, which increased the need to use their resources on the correct markets. There were many questions that need to be addressed: What should RFC's role be to the patients? Should they expand their services? Should they seek to position themselves as the wellness expert for the entire family? How could they market their message effectively to increase their patient-base? A number of factors would have to be considered, in addition to how to approach the new marketing strategy, if any, as well as culminate all the new elements needed to revamp RFC successfully.

## AUSTRALIAN DREAM: AN AMERICAN DREAM

**Stephen L. Loy, Eastern Kentucky University**  
**Steve M. Brown, Eastern Kentucky University**  
**Mark Case, Eastern Kentucky University**

### CASE DESCRIPTION

*The primary focus of this case is on how a small business that has been successful selling an over-the-counter arthritis cream in a regional market can refocus to compete in a national market. The secondary issues include marketing, strategic management, entrepreneurship and e-commerce issues.*

*Students are provided a scenario of a small business that is on the verge of taking off. The case requires students to do a SWOT analysis, analyze the market environment using Porter's five forces model, and to analyze the business philosophy and practices of an emerging company. Students should develop a plan for moving the consumer product from a local/regional market to a national market in order to generate sufficient sales to stay on the major chain store shelves.*

*The case has a difficulty level of four and is appropriate for senior level classes or higher. It can be taught in two hours of class time, with students spending six to twelve hours of outside preparation. At the request of the company, this case does not contain any detailed financial data or financial strategy.*

### CASE SYNOPSIS

*Phil and Mark Maddox formed a small company, Nature's Health Connection (NHC), to market a skin cream that was being sold through Phil's pharmacy. NHC purchased the small company that made the skin cream. The distinguishing ingredient in the cream was emu oil. In 2000, an new ingredient was added to the cream to create Australian Dream® Arthritis Relieving Cream (AD).*

*Over the past ten years, the attempt to grow the company has been difficult and at times nerve racking. However, growth has been steady due to a trial and error decision-making process, a little luck, and the sheer determination of the brothers. They make a good team by complimenting each other's strengths.*

*The initial strategy was to market ADARC to independent pharmacies in the southeast United States. The product has a high price relative to its competitors, but provides an attractive profit margin for the pharmacies. Advertising was limited to in-store displays and local newspaper ads. The product has a loyal customer base and appears to be recession proof, but sales volume has not grow much until recently.*

*Recently, Walgreens began selling ADARC in many of its stores across the country. Once this happened, ADARC was quickly picked up by other large chain stores. The investment required to keep these national accounts almost caused Phil to throw in the towel. Going national requires*

costly changes in advertising strategy that seemed insurmountable. However, they are adapting quickly.

*NHC's growth has gotten the attention a broker wanting to know if NHC is for sale. Phil, the entrepreneur and risk taker, strongly believes NHC will be worth a lot more if they can create a national brand image, introduce other products, and expand their distribution through other national and regional chains. The big question facing NHC is: How to do it?*

## INTRODUCTION

Nine months ago Phil Maddox almost called it quits. He was getting very discouraged with the way things were going at Natures Health Connection (NHC), a company he helped co-found with his brother Mark in 1998. Phil's vision has always been to grow NHC into a viable national company. Since that time, a series of shrewd promotional moves have instilled new life into their sales despite the national economy nose diving into the worst recession since the 1930s.

According to Phil, the journey over the past ten years has been filled with plenty of bumps, pitfalls and sleepless nights. Daily operations and progress has been hard, grinding and at times caused him to think about quitting. The company has grown through a series of steps -- rapidly at times and more slowly at other times. However, through trial and error, calculated decisions, and sometimes sheer luck, the Maddox brothers have managed to grow the sales of their primary product, Australian Dream® Arthritis Relieving Cream (ADARC) from a local market to a regional market, and now to the national market.

The growth of ADARC has caught the eye of a business broker who wanted to if the Mattox brothers were interested in selling NHC. Instead of selling out, Phil and Mark want to develop a strategy to double, even, triple sales of ADARC.

## ISSUES

"Hard work and perseverance are keys to our success. We have experienced numerous setbacks, but we learned from them and moved forward. Our first manufacture had undisclosed financial problems, and our second one couldn't meet shelf life requirements resulting in major inventory losses. We have had to redesign our packaging to meet shipping and display restrictions, we have had problems with our sales reps, our Web site needed to be redesigned, and we have had to experiment with our advertising to get it to work. I like being creative and problem solving, but all of this is time consuming and nerve wracking for me."

"I'm a risk taker, and Mark is risk adverse, probably because of his back ground as an attorney. Sometimes I wished I owned 51 percent of the company. Then I could do what I want. But, I'll have to admit that Mark has saved us from moving down a disastrous path more than once. Like the time I wanted to dump a lot of money into TV advertising. We actually make a good team"

"Recently I made a decision to put a lot of my own money into NHC because Mark had cold feet. This was about in the time I was ready to throw in the towel. We had come to a point where we had an opportunity to the company to a new level by going national or just remaining a regional company. Walgreens offered us a deal to market ADARC throughout their entire chain. But, we would have to meet certain volume bench benchmarks or be dropped after a trail period."

"We knew one of the keys to our past success was advertising at the local level through newspapers. We tried to do what we did locally at the national level. It just didn't work. It was ridiculously expensive. I felt we could get similar results through placing ads in nationally read magazines, but this was also very expensive and Mark dug his heels on taking this risk. I floated the cost on my own, and it appears to be working. Every time we run ads in the magazines all of our sales increase."

"Even though we are in midst of a major recession, our Walgreen sales have remained steady. Walgreens recently cut 10 percent of their shelf items, and we survived the cut. It appears that we are on the verge of meeting their volume requirements. I attribute this to the fact that we have a good product, and that our magazine ads are working. If this trend continues, I feel strongly that we will be able to land the CVS account, other national grocers like Kroger, plus large regional pharmacies and grocers"

"With this kind of volume, we should be able to establish a national brand image and become a household name like Icy-Hot and Bengay. We are already considering launching a new product using our current business model. It would be relatively easy and fairly inexpensive. By making a slight change in the formula of our skin cream, we could turn it into an anti-wrinkle cream that could be piggybacked to ADARC since it could be made by the same outsource manufacturer, target the same demographic group, and use the same distribution channels and promotional strategy. But do we really to grow by expanding our product line before ADARC is firmly established as a national brand?"

Recently, we got a feeler from a business broker asking if we are interested in selling our company. The amount of money he mentioned was peanuts compared to what we could make from creating a national brand with mass distribution. It's tempting to think about cashing out and building another company, but now isn't the right time. Getting the capital to for a big campaign turn ADARC into a mass market brand name won't be easy. One option is to turn NHC into a publicly held corporation, but I really don't want to do that. I like the freedom to make decisions without worrying about stockholders."

# CHANGING AUDITORS-THE CASE OF CALLAWAY GOLF COMPANY AND ITS FOUR DIFFERENT AUDITORS IN ONE YEAR

**Brad J. Reed, Southern Illinois University - Edwardsville**

## CASE DESCRIPTION

*This case requires the student to research the professional literature regarding auditor changes. Students are required to research Generally Accepted Auditing Standards (GAAS) regarding changing auditors. Additionally, students are required to research the Securities and Exchange Commission (SEC) rules regarding disclosure of changing auditors on Form 8-K. The case is appropriate for senior level and/or graduate level auditing courses. The difficulty level of the case is 3/5. The suggested final product of this case is a short memo where the student evaluates the possible reasons why a company may change auditors as well as the required responses from the auditor. The student is also asked to evaluate and discuss the required auditing the impact of the recommended solution on the company's financial statements. It is also possible to use the case as a vehicle for discussion when presented by the professor in a class setting.*

*The case is adapted from Callaway Golf Company's 8-K filing where a disagreement between Callaway Golf Company and their auditor is discussed. Additional information is taken from Callaway Golf Company's 10-K filing. As such, this case exposes students to a real-world situation.*

## CASE SYNOPSIS

*How could a publicly held company that is in the public's eye and whose stock is traded on the NYSE have four different auditors in approximately one year? This case details the strange set of events that led Callaway Golf Company (Callaway) to have four different auditors in a short period of time. The culminating event of the case is a disagreement between Callaway and the auditing firm of KPMG Peat Marwick (KPMG) regarding the appropriate accounting treatment for a financial statement item. While most companies and auditors go to great efforts to keep any accounting dispute private, both Callaway and the auditor in this case were willing to make the details of the dispute public. As such, this case provides some interesting details on the relationship between a company and its auditor and how accounting standards are often open to different interpretations.*

*Callaway is known for making numerous types of golf equipment, including clubs, putters, balls, and drivers. In March of 2002, Arthur Andersen was dismissed by the Board of Directors of Callaway because the audit committee was concerned about the future of the accounting firm. Callaway hired KPMG to replace Arthur Andersen. In December 2002, Callaway Golf dismissed KPMG due to disagreements with management about accounting for Callaway's warranty reserves.*



*Callaway thought that the change in the warranty reserve should be treated as a change in estimate, while KPMG thought that the change should be treated as a correction of an error. Callaway felt so strongly about this accounting issue, that when Callaway and KPMG could not agree on the appropriate accounting treatment, Callaway dismissed KPMG and hired a replacement auditor.*

## HISTORY

In 1991 Callaway introduced the Big Bertha driver. The Big Bertha was the first wide body stainless steel "wood" introduced in the golf market. The founder of Callaway Golf, Ely Reeves Callaway Jr., is credited with the idea of a stainless steel golf club taking its name from a World War I German cannon known for its long-distance capabilities. In 1991 Mark Brooks was the first PGA Tour player to use the Big Bertha to win a PGA tournament at the Greater Greensboro Open. The Big Bertha was an instant success and the following year the company went public on the NYSE under the ticker symbol ELY (Callaway website).

PricewaterhouseCoopers LLP had been the company's auditor since Callaway's IPO, but the firm was released in 2001 because the audit committee believed that having a new auditor would enhance the auditor's independence. Arthur Andersen LLP was appointed as the new auditor in 2001. In March 2002, Arthur Andersen was dismissed due to concerns about the future of Arthur Andersen and KPMG was hired. In December 2002, KPMG was dismissed due to a disagreement over an accounting issue involving the company's warranty liability and Deloitte & Touche was appointed as the new auditor. It is important to note that Callaway had always received an unqualified audit opinion on its financial statements (Callaway 8-K, 10-K).

### Required:

1. What are some of the reasons a company may change auditors?
2. What is the relevant section of GAAS that discusses a change in auditors? What does GAAS require of the new auditor when there is a change in auditors?
3. What is a Form 8-K. What is its purpose? What are the rules regarding 8-K's when there is a change of auditors.

## REFERENCES

Callaway Golf Company, Corporate website, [www.callawaygolf.com](http://www.callawaygolf.com).

Callaway Golf Company, 8-K, December 12, 2002, filed December 19, 2002.

Callaway Golf Company, 10-K, December 31, 2002.

## **UPWARD UNLIMITED: BUSINESS OR CHARITY?**

**Robert J. Routman, University of South Carolina Upstate**  
**Jeff Smith, University of South Carolina Upstate**

### **CASE DESCRIPTION**

*This case focuses on the difficulties of delineation between charitable organizations chartered with tax-exempt status for the purpose of serving the good of the public and the classification of a business entity operating in the capacity of supplying a product in demand in the market. It is designed for use in Advanced Accounting, New Business Enterprise and/or Entity Taxation courses.*

### **CASE SYNOPSIS**

*Few regulatory resources are committed to monitoring the mission, purpose and operations of organizations after they initially receive tax-exempt status from the IRS and their charter from the office of the Secretary of State in which it resides. Avenues potentially exist for non-profit organizations to operate as a business and reap the financial benefits of being organized as an eleemosynary entity, exempt from the burden of income tax, sales tax, and property taxes.*

### **BACKGROUND**

In 1986, Upward began in Spartanburg, SC as a youth basketball program at First Baptist Church. Subsequently, it was formally organized in 1995 as Upward Unlimited, a South Carolina non-profit corporation. Upward is qualified as an IRC §501(c)(3) charitable organization. Its published mission statement is "to introduce children to Jesus Christ by creating opportunities to serve through sports." Their materials frequently list their emphasis on non-competitive participation, with the motto "every child is a winner." Two thirds of the stated 506,000 participants in the leagues and programs play basketball, while the remainder participate in cheerleading, flag football and soccer. Upward's revenues now exceed \$28 million annually.

### **THE MODEL**

Upward provides uniforms, administrative materials (time sheets, forms, etc.) and handbooks (both coaching handbooks and player handbooks) which churches in various communities then use to organize basketball leagues. For example, starter kit items for a basketball team include registration brochures, brochure display, upward basketball director's manual, advertising posters, prayer reminders, and a coach training kit. The coach's items for a basketball team include, coach playbook with DVD, coach shirt, referee DVD, parent orientation flyer, referee handbook, scripture

learning cards, award stars, gospel pack, teamupward.com basketball welcome card and a teamupward.com coach introduction card.

Upward states: "Our goal is to free you up to focus on ministry. Upward provides everything you need to administer your league and everything your coaches need to lead their teams. Upward also provides a variety of items, including jerseys, for each of your participants that they get to keep even after the season is complete. These items are pre-packaged by team and labeled with each child's name for easy distribution."

The individual churches provide, without cost to Upward, the manpower (coaches, referees, league commissioners, etc.) and the facilities (gymnasiums, electricity, basketballs, etc.). In the basketball leagues, players pay a \$99 fee directly to Upward, and receive a uniform which consists of shorts and a reversible jersey. Players also receive a handbook, as do the coaches.

A new member church commences organization of an Upward sports league by paying \$400 for up to four representatives to attend an Upward Leadership Training Conference in Spartanburg, SC. Additional attendees cost \$100 each and additional training conferences may optionally be attended. Upward's philosophy is to organize league structure and team structure so as to equalize talent and to insure all participants receive equal playing time. The emphasis is on a Christian atmosphere while participating in sports, with Bible lessons during halftime. Players receive "stars" for their participation, with no individual being rewarded or credited for individual accomplishments or achievements athletically.

Upward's mission statement purports to be a religious ministry through sports. A corporation organized and operated exclusively for religious purposes is exempt from taxation under IRC §501(c)(3). However, IRS Publication 598 explains that a tax exempt organization may still be subject to taxation on unrelated business income defined as "income from a trade or business that is regularly carried on by an exempt organization and that is not substantially related to the performance by the organization of its exempt purpose or function, except that the organization uses the profits derived from the unrelated business." Activities do not lose their "identity as a trade or business merely because it is carried on within a larger group of similar activities" by the exempt organization as when an exempt hospital's pharmacy engages in sales to the general public. *Id.* To be substantially related to an organization's exempt purpose, a business activity must contribute importantly as determined by "the size and extent of the activities involved in relation to the nature and extent of the exempt function that they intend to serve." *Id.* If "an activity is conducted on a scale larger than is reasonably necessary to perform an exempt purpose, it does not contribute importantly." *Id.* "The part of an activity that is more than needed to accomplish the exempt purpose is an unrelated trade or business." *Id.*

## FINANCIAL RESULTS

The following is a compilation from the last 3 years corporate tax returns (Form 990) filed by Upward:

	2007	2006	2005
Sales of inventory	28,360,132	24,166,205	21,833,035
Cost of Goods Sold	(10,068,227)	(8,168,398)	(8,099,672)
Gross Profit	18,291,905	15,997,807	13,733,363
Other revenue	448,002	744,669	488,900
Program Services	(9,441,861)	(9,205,894)	(4,762,593)
Management and General	(3,319,671)	(4,485,564)	(4,024,924)
Change in net assets	5,978,375	3,051,018	5,434,746
Net assets (EOY)	27,036,123	21,057,748	18,006,730

Changes in net assets for non-profit entities is equivalent to net income in the profit world. These changes in net assets are the equivalent to retained earnings in the business world. Non-profits do not distribute any "earnings" as dividend distribution; therefore all changes in net assets directly increase or decrease the fund balance.

Salaries by position for the 12 highest paid employees for the 3 year period:

Position	2007	2006	2005
President	344,728	271,448	245,287
VP of Administration	127,217	113,795	102,416
Senior VP	161,218	150,053	127,350
Senior VP	140,635	136,752	131,689
Senior VP	146,730	133,555	125,236
Senior VP	133,883	122,868	120,683
VP	118,703	109,163	101,008
Program Director	111,346	102,633	111,357
Program Director	109,605	94,856	90,350
Program Director	97,875	89,328	89,023
Program Director	88,317	93,593	83,668
Program Director	91,033	87,504	82,454
Total salaries	1,671,290	1,505,548	1,410,521
Average salary	139,274	125,462	117,543

## QUESTIONS

1. If Upward was structured as a for profit business entity, how much tax would the business pay FYE 1/31/2008? Consider property taxes, income tax and sales taxes in your calculation.
2. What are normal operating reserves for a non-profit? Compare to 3 other similar non-profit entities, calculating reserves at the end of their 2007 tax year. Dividing the fund balance by annual operating expenses gives an indication of operational sustainability, or commonly referenced as "reserve" for non-profits.
3. Compare the salaries of the 12 highest compensated employees of Upward to at least one non-profit entity and one business of approximately the same size.
4. Formulate your argument for Upward being properly categorized as Christian based ministry and receiving tax-exempt status under section 501(c)3 of the IRS code.
5. Formulate your argument and discuss the case that Upward would be properly categorized as a for profit business.

## STUDENT RESOURCE MATERIALS

Free Resources From The Internal Revenue Service Website : [www.irs.gov](http://www.irs.gov)

Publication 598 Tax on Unrelated Business Income of Exempt Organizations

Publication 557 Tax Exempt Status for Your Organization

Internal Revenue Code: [[links to www.law.cornell.edu/uscode](http://www.law.cornell.edu/uscode)]

Publication 78 List of Charities

Free Resources From GuideStar Website: [www2.guidestar.org](http://www2.guidestar.org)

Form 990

## **INCOME SMOOTHING AT BEAZER HOMES**

**Gary P. Schneider, Quinnipiac University**  
**Aamer Sheikh, Quinnipiac University**  
**Kathleen Simione, Quinnipiac University**

### **CASE DESCRIPTION**

*The primary subject matter of this case concerns earnings management to achieve income smoothing. Secondary issues examined include the accounting for sale-leaseback transactions and accounting practices in the home building industry. The case has a difficulty level of four or five and can be used in upper-division financial accounting courses. The case is designed to be taught in two class hours and is expected to require four hours of outside preparation by students.*

### **CASE SYNOPSIS**

*This case provides students with a real world example of alleged income smoothing and its consequences. Students are asked to analyze the earnings management techniques used and discuss the implications for management of the use of income smoothing.*

### **ABOUT BEAZER HOMES**

Beazer Homes builds and sells predominately single-family residences in 17 states across the United States. In recent years, the company has been ranked consistently as one of the top ten residential home builders in the country, based on number of homes built and sold (Beazer Homes, 2002; Beazer Homes, 2005; Beazer Homes, 2008).

The company started as Beazer PLC, a home builder in the United Kingdom. Beazer Homes entered the U.S. residential housing markets in 1985 with the purchase of Atlanta home builder, Cohn Communities. The Koppers acquisition, financed completely with bank loans, gave Beazer Homes a strong presence in the U.S. construction market, but saddled the company with substantial debt just in time to face the declining housing markets in both the United Kingdom and the United States in the early 1990s. After several years of negotiating with banks regarding repayment plans for this debt, the company was acquired by Hanson PLC, a British company. Hanson PLC spun off Beazer homes in 1994 and the company went public later that year as an independent, U.S.-only home construction conglomerate (Lurz, 1994; New York Times, 1994).

As the U.S. real estate markets improved, Beazer Homes made additional acquisitions were made that expanded Beazer Homes into new regions in the Southeast, Mid-Atlantic, and West. By 2000 the company was selling about 8,000 homes each year and by 2005 they were selling more than 18,100. However, the real estate crisis, the general recession, and the near-collapse of the financial markets hit all major home builders hard. Beazer Homes was not immune to these industry

trends and the company's sales dropped dramatically to 7,700 homes in 2008 (Funding Universe, 2009).

### **INCOME SMOOTHING**

Companies with volatile earnings are considered by investors to have higher degrees of inherent risk than companies that report earnings that grow in a steady pattern, showing regular increases every year. Because of the increased level of risk perceived as inherent in companies with volatile earnings increases and decreases, the stock of those companies trades at a discount relative to the stock of companies with smooth and steady earnings growth (Brigham and Ehrhardt, 2007). Income smoothing is the result of carefully managing earnings (net income) to show a smooth, steady growth in earnings each year rather than volatility (Buckmaster, 2001).

Earnings management can also be used to understate earnings in good years and overstate earnings in bad years. This income smoothing strategy reduces variability in reported earnings. Revenues and expenses are shifted between accounting periods. Firms report higher revenues and/or expenses in some periods and lower in other periods, effectively shifting net income from successful periods to less successful periods.

### **THE SEC INVESTIGATION**

The SEC began an informal inquiry into violations of Federal securities laws at Beazer Homes that became a formal order of investigation in 2007 (Wall Street Journal, 2007). The alleged accounting irregularities stemmed from abusive earnings management that resulted in fraudulent misstatements of net income over a multi-year period. Specifically, the SEC alleged that improper recording of Beazer's cost of goods sold for land development and house costs and improper revenue recognition in accounting for sale-leaseback transactions caused a material and fraudulent misstatement of net income (Corkery, 2008).

By the time the SEC had completed their investigation, Beazer found itself charged with submitting materially false company filings for years 2001 through 2007. Specifically, Beazer was charged with the fraudulent misstatement of net income for the purpose of improperly managing its quarterly and annual earnings. Although never admitting or denying the SEC allegations, Beazer Homes did reach a settlement with the government. As part of that settlement, Beazer adjusted and restated its financial statements for the fiscal years 1998 through 2006 and the first two quarters of fiscal year 2007 (Corkery, 2008). The company also consented to the entry of a cease and desist order for future violations. The SEC noted both Beazer's remedial actions and its cooperation as factors in reaching the settlement (SEC, 2008).

The consequences for Beazer Homes of these problems have been significant, especially when combined with the general malaise in the home building industry. Beazer's stock price reached a high of \$79.12 on January 13, 2006; in 2009, the stock consistently traded below one dollar per share, hitting a low of \$0.25 on March 9, 2009. Beazer Homes announced that its chief accounting officer (CAO), Michael T. Rand, was terminated as a result of his alleged efforts to destroy documents related to the SEC investigation. The SEC filed a separate complaint against Rand after settling the charges with Beazer Homes (SEC, 2009). The SEC alleges that Rand's misconduct led

to inflated reserves and other accrued liabilities in earlier periods. Further, the complaint alleges that Rand's conduct was intended to maximize bonuses and meet or exceed analysts' expectations. In effect, the SEC in this complaint is holding Rand accountable for all of the charges made against the company.

According to SEC (2009), Rand's scheme to manage the earnings of the homebuilder was multi-faceted. The first part of the scheme involved manipulation of the land inventory accounts. As Beazer constructed its subdivisions, costs accumulated in the land inventory accounts were allocated to individual home lots. When the home was later sold, the allocated costs in the account were expensed as a cost of sale.

From 2000 to 2005 Beazer over-allocated land inventory costs in material amounts that gave it excessive reserves and other accrued liabilities in violation of GAAP. This caused Beazer to understate income by a cumulative total of \$42 million between 2000 and 2005. Beginning in 2006, the over-allocations were reversed, causing an overstatement of income of \$17 million in 2006 and the first two quarters of 2007 (SEC, 2008; 2009).

In the time under investigation that preceded 2006, Beazer owned most (70-80%) of its model homes. The models it did not own were financed using sale-lease back arrangements with third parties. Revenue on these transactions was recognized in full at the beginning of the lease term. Near the end of 2005, however, Beazer entered into several sale-leaseback transactions that included written side agreements in which Beazer retained the right to a percentage of the appreciation on the home up through the time of its eventual sale. Beazer's independent auditor advised Beazer that the substance of these transactions outweighed their form and that Beazer would have to account for them as financing transactions, which would preclude Beazer from recording the sales as revenue at the beginning of the lease term. To avoid this accounting treatment, Beazer is alleged to have included the appreciation rights in oral side agreements, which it allegedly did not disclose to its auditors (SEC, 2008; 2009).

## **QUESTIONS**

Most of these questions will require that you do research beyond reading the case. You can use the resources of your library and the Web, especially the SEC Web site, to conduct this research. Your instructor might recommend specific resources for particular questions.

1. Did any of the officers of Beazer Homes, other than the CAO, face consequences as a result of the company's settlement with the SEC?
2. Why did Beazer Homes' management fire their CAO for destruction of documents rather than for carrying out the alleged accounting irregularities?
3. What are the most likely reasons that Beazer engaged in the alleged accounting irregularities?
4. Is it possible to identify a pattern of earnings management in Beazer's restated earnings?
5. What were the specific effects on the financial statements of the restatements to which Beazer agreed?



## DISCLAIMER

This case was written using publicly available information to provide a setting for student learning. It is not intended to provide commentary on or evaluation of the effectiveness or appropriateness of any party's handling of the situation described.

## REFERENCES

- Beazer Homes. (2002). *Beazer Homes, USA, Inc. 2001 Annual Report*. Atlanta: Beazer Homes.
- Beazer Homes. (2005). *Beazer Homes, USA, Inc. 2004 Annual Report*. Atlanta: Beazer Homes.
- Beazer Homes. (2008). *Beazer Homes, USA, Inc. 2007 Annual Report*. Atlanta: Beazer Homes.
- Brigham, E. and M. Ehrhardt. (2007). *Financial management: Theory & practice*. Mason, OH: South-Western College.
- Buckmaster, D. (2001). *Development of the income smoothing literature 1893-1998, Volume 4: A focus on the United States*. Greenwich, CT: JAI Press.
- Corkery, M. (2008). Beazer settles charges over its accounting. *Wall Street Journal*, September 25, B2.
- Cornett, M., A. Marcus and T. Hassan. (2008). Corporate governance and pay-for-performance: The impact of earnings management. *Journal of Financial Economics*, 87, 357–373.
- Funding Universe. (2009). *Beazer Homes USA, Inc. company history*. Retrieved on September 12, 2009 from: <http://www.fundinguniverse.com/company-histories/Beazer-Homes-USA-Inc-Company-History.html>
- Hoover's. (2009). *Hoover's company information. Beazer Homes USA, Inc.* Retrieved on September 12, 2009 from: [http://www.hoovers.com/beazer-homes/--ID\\_\\_16951--/free-co-factsheet.xhtml](http://www.hoovers.com/beazer-homes/--ID__16951--/free-co-factsheet.xhtml)
- Kendall, B. and S. Lynch. (2009). Beazer to pay as much as \$53 million in fraud case. *Wall Street Journal*, July 2, B3.
- Lurz, W. (1994). Acquiring mind: McCarthy leads Beazer to top 20, *Professional Builder*, August, 78.
- National Mortgage News*. (2009). Beazer resolves fraud allegations. July 13, 16.
- New York Times*. (1994). Hanson takes Beazer Homes public and sells property, *New York Times*, February 24. D4.
- Securities and Exchange Commission (SEC). (2008). *Beazer Homes USA, Inc., Administrative Proceeding 33-8960*, September 24. Retrieved on June 15, 2009 from: <http://sec.gov/litigation/admin/2008/33-8960.pdf>
- Securities and Exchange Commission (SEC). (2009). *Complaint 21114 Securities and Exchange Commission v. Michael T. Rand, Civil Action No. 1:09-CV-1780*. July 1. Retrieved on July 12, 2009 from: <http://www.sec.gov/litigation/litreleases/2009/lr21114.htm>
- Wall Street Journal*. (2007). SEC steps up probe into Beazer Homes. July 24, A2.

# THE NOT-SO-SUBTLE ART OF PERSUASION: THE CASE OF ATLANTIS SPA PRODUCTS

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## CASE DESCRIPTION

*The primary subject matter for this case involves the sales approach of a kiosk vendor, selling nail and skin care products, in a suburban American mall. The dialogue contains diverse persuasive appeals and customer responses. This case was designed for use in undergraduate business communication, marketing, or personal selling courses, particularly courses that address analysis of persuasive appeals and/or personal selling techniques, and development of persuasive communications.*

*The case could be taught in two 50-minute or one 75-minute session(s) and is expected to require two hours of outside preparation by students. It can be used as a follow-up to class discussion of persuasive appeals or a range of personal selling techniques, or as a preliminary assignment to a written persuasive appeal or persuasive role play.*

## CASE SYNOPSIS

*While shopping at a local mall, Lana Thompson is approached by a young woman dressed in a white dress shirt, black slacks and black apron, who offers Lana a slice of colorful soap wrapped in tissue paper. Lana slows her pace, accepts the gift, smells the soap fragrance, then turns toward the kiosk that features a variety of skin and nail products. The sales associate, Salima, selects another colorful soap sample from her tray and offers it to Lana who stops to accept it. This "hook," effective in its appeal to the senses, entices the customer, and the ensuing sales exchange focuses on the exclusive, mineral-rich beauty products from the Dead Sea. The sales call also demonstrates a number of other classic persuasive appeals, including scientific, emotional, rational, character, comparative, vanity and sensory. The dialogue also stimulates class discussion of selling techniques including the hook, non-verbal and verbal selling techniques, features and benefits, customer care, responding to objections, and closing the deal.*

## CASE DIALOGUE

It was a leisurely Sunday afternoon in August, and Lana Thompson decided to go shopping at the Centerville Mall for nothing in particular. Her first stop, upon arrival, was the Java King Coffee Shop for her usual—a medium vanilla latté—and as she strolled slowly down the mall's spacious and carpeted concourse, Lana enjoyed slow and indulgent sips of her favorite beverage. She paid little attention to the various kiosks strategically positioned at intervals along her way, and focused her attention on the extravagant window displays of clothing and jewelry.

As Lana slowly approaches the Atlantis Spa Products kiosk, she is awakened from her reverie by an attractive sales representative approaching her with a shy smile. Salima, dressed in black slacks, a crisp white shirt and black apron, is holding a tray of colorful soap samples. She gracefully selects a sliver of colorful, translucent soap wrapped in tissue paper, and offers it to Lana.

### THE HOOK

Salima: Please... (Offers a soap sample to Lana as she passes by the kiosk.)  
Lana: (Lana pauses, takes the sample, and smells.) Oh, thank you. Mmmmm...this smells wonderful.  
Salima: Would you like another?  
Lana: (Lana stops and turns toward the kiosk.) Yes, thank you. This one smells good, too.  
Salima: Yes. (Smiles and nods in agreement.) I am Salima. What is your name?  
Lana: Lana.  
Salima: Lana. Is such a beautiful name. Where are you from, Lana?  
Lana: I live here in Centerville.  
Salima: I am from Jordan, in a city called Amman.  
Lana: You're a long way from home.  
Salima: (Smiles.) Yes, I have been here only for six months. How is my English? You can understand me?  
Lana: Oh, it's fine. You speak very well for only being here six months.  
Salima: Lana, can I ask you something? It's a little personal.  
Lana: Well, yes.  
Salima: May I see your hands?  
(Lana holds out her hands. Salima studies them intently, then nods her head knowingly.)  
Salima: Hmm...You go to the nail salon sometimes?  
Lana: Yes.  
Salima: Do you mind if I ask...About how much do you spend there?  
Lana: Oh, it costs me about \$30 for a manicure.  
Salima: So, \$30 for manicure, then maybe another \$30 for a pedicure if you get that, too? Plus, you have other costs, too, like your tip and your gas to get there. So, about \$80 twice a month is what most women pay to go to the nail salon.  
Lana: (Nods in agreement) Yes, the expenses do add up pretty quickly.

### THE "MAGIC"

Salima: May I show you something for your nails? May I take your hand?  
(Lana extends her hand, and Salima inspects it.)  
Are you doing your own nails?  
Lana: Yes. And sometimes I go to the salon.  
Salima: Hmm. See these ridges? See how dull? Now, I have something amazing here. I will show you on one finger. Don't look until I am finished.  
(Salima buffs Lana's fingernail using a four-sided buffing block, talking as she buffs).

This side of the block is for the ridges and for cleaning the nail, and you see I buff five seconds, one...two...three...four...five. Now, this side is for the circulation. This brings up all the natural oils and stimulates blood circulation and massages the nail so it grows faster, one...two...three...four...five. Now, I buff this time with the magic side, one...two...Now don't look until I am done...three...four...

Lana: What is on the magic side?

Salima: (Lowers her voice to a whisper.) Is pure silk.

(Salima continues buffing)

So, three...four...five with the silk side. Now, don't look yet (Salima holds her finger over Lana's fingernail). You see, all you need is to buff with three sides for five seconds each. This cleans your nail, brings all the natural oils up to the surface, and helps it grow faster. Saves you time. Saves you money. Are you ready to see difference in your nails?

Lana: (Now curious.) Yes.

(Salima positions Lana's hand under the kiosk light and ceremoniously removes her finger from Lana's nail.)

Lana: Wow! What a difference.

Salima: (Smiles knowingly). Yes. And it will stay shiny for the next two weeks. Look at what was before (points to Lana's other nails on that hand) and what is after (points to the buffed nail). So you know that this is good? You see all the lines and ridges here in this nail? But in this nail that we just buffed-gone. And you see how easy? Use this side of the buffer for five seconds, this side for five seconds, and the magic side for five seconds. Easy. And so much difference. Just look at the difference.

Lana: You're right. This nail is really shiny.

### **THE HEALING MINERALS OF THE DEAD SEA**

Salima: Now, let me show you something else amazing. This...

(Lana picks up a bottle filled with clear liquid.)

... is a cuticle oil made from minerals from the Dead Sea. You see all the dry, dead skin around your nail? (Salima holds Lana's hand, pointing to her cuticles.) Now, we just massage this oil into your cuticle-it is full of nutrients. Then we are going to see really shine! (Salima massages the cuticle oil into the top of Lana's nail.) And again we count. One...two... three...four... five... and look!

Lana: Wow, what a difference. My skin actually feels better and softer on that finger.

Salima: Yes...and really simple, one...two...three...four...five. And look at the difference from your other cuticles that are dry. It's like your lips. When you have dry lips, what do you do? You moisturize them. Your nails need that moisture, too.

Lana: (Nods.) Mmmm-hmmm.

Salima: And you do your nails by yourself-fast and easy-without having to go to the salon. How much is it at nail salon did we say, about \$80 for twice a month? That's almost \$160 a month, or over \$1,000 a year for your hands and feet, right? This is so much cheaper. And you know the best thing? (Long pause.)

Lana: (Curiously.) What?

Salima: (Salima lowers her voice.) The lifetime warranty.

Lana: What do you mean?

Salima: (Peels off sides of the nail buffer.) These sides of the buffer, you get them anytime from us, free. You use them, you need more, you come see me in the mall and I replace them. I give you my phone number and my e-mail. How much for nail salon each month? \$160 or more! How much is that a year? (Lana rolls her eyes.) Oooooooooo - more than \$1,000 in a year. For you, this package, with all the Dead Sea minerals for your nails, only \$79! For whole year's supply. That's a lot cheaper than one visit to nail salon!

And inside you get four things...

(Salima carefully opens the package of nail products and shows Lana the four products inside.)

You get the buffer with lifetime warranty, which you can bring to any of the malls and you get replacement free. No charge. Or you call me anytime, and you say you want replacement, I mail it to your home. Free. Also you get the cuticle oil. And this nail file. And a lotion with minerals from the Dead Sea.

Lana: I think \$79 is pretty expensive for a manicure set.

Salima: Well, remember that these products will last the whole year for you. So easy to use and saves you so much money. And look at this.

(Gently, almost reverently, Salima picks up Lana's hand again and points to her buffed fingernail.)

How shiny is this? And you know how proud I am of these products? Because five days from now, your nail will still be shiny. Ten days from now your nail will be shiny. And so easy. Buff with this side first, then this, then this, and look. Or, if you need to go even faster, just use the white side-the silk side-and buff one...two...three...four...five, and look, everything is so simple, you cannot imagine.

You go to the nail salon and everything is so expensive and the products are made from chemicals, not natural. Don't go to the nail salon. Our products are safe and natural. With our products, you get a professional manicure. And you don't have to go to the nail salon, the nail salon comes to you. And look -- (Again, Salima points to Lana's nail) -- this is the natural shine of your nail - no chemicals. What do you think? You like the way your nail is so smooth and shiny and natural?

Lana: Yes.

Salima: The set comes with lotion from the Dead Sea, too. Which of these lotions do you like best? (Lana points to four lotion bottles, each labeled with the name of the fragrance.)

Lana: Let me smell the Sea Breeze one and the Blue Sky one.

Salima: (Salima open the two bottles and gives them to Lana.) Which fragrance do you like best?

Lana: I think Sea Breeze. It smells so fresh.

Salima. Here, I put on your hand. (Salima puts a drop of lotion on Lana's hand and rubs it in slowly.) It leaves your skin relaxed and hydrated. You like the smell and feel of the lotion?

Lana: This lotion is nice. It makes my skin feel so silky.

Salima: That's because of the minerals in the sea, it's all very fresh all of the time. All natural. Not made in China, not made in Japan. It's made in Jordan from the waters of the Dead Sea. Not with chemicals.

(Salima hands Lana a bottle of the Sea Breeze lotion.)

Have you heard of the Dead Sea? Do you know where it is?

Lana: (Hesitates.) I think it's in the Mediterranean?

Salima: The Dead Sea is a salt lake in the Jordan Valley, between Jordan, where I am from, and Israel. It's very tranquil in the Dead Sea, and very rich in minerals. Since early times, women have known about the medicinal properties of the Dead Sea. Have you ever heard of Cleopatra?

(Lana nods).

She was Queen of Egypt. Very beautiful. Very smart woman. She used the water and mud to keep herself youthful. She knew of the miraculous and healing effects of these minerals on skin. Today, I will show you these secrets.

Salima: Millions of people use the mud and water of the Dead Sea. Why? For good health. Medical research shows us that the Dead Sea salts and minerals have healing properties. These products are very exclusive. And millions of people spend a lot of money every year to travel to the Dead Sea. Now we bring the Dead Sea to you. No jet lag. No dehydration or circulation problems while in the airplane! (Pauses.)

So Lana, do you know what are the benefits of the Dead Sea?

Lana: Not really.

Salima: Some say the Dead Sea minerals are magical. Not magical, but very healthy to us. Science proves this.

(Salima holds up her hand, looks directly at Lana, and begins to count off each finger.)

Many scientific studies show the number one benefit: Dead Sea minerals are great for your body and skin. They help to balance the water and moisture level in your skin. Number two: They heal your skin tissue which is damaged by sun and chemicals. Number three: They make the skin anti-allergic. Number four: You know environmental factors like pollution that affect our skin? These products protect our skin against these pollutants in the air. Number four: You know the toxins our bodies produce? These products neutralize these toxins. And number five is best of all: These products help you relax. They relieve stress.

(To emphasize the point, Salima points to a photograph of a beautiful, bikini-clad woman floating serenely on the surface of the Dead Sea.)

Lana, do you have stress in your life?

Lana: (Nods.) Yes I do.

Salima: The salts and minerals from the Dead Sea truly do have healing properties and can help you with stress, or fatigue, and even sleeplessness. Or maybe you have arthritis or aches or poor blood circulation? Our products are good for these problems as well.

Mud from the Dead Sea contains minerals that heal wounds, wake up hair roots and eliminate dermatitis and dandruff. Some people say it can even stop headaches and migraines.

Maybe you have skin allergies, Lana, yes? Dead Sea minerals can even stop eczema and skin rashes-even dandruff.

And just look at your hands. These minerals make your skin more beautiful and elastic. Our products are all made with the healing waters and minerals of the Dead Sea. People from all over the world come to Jordan for these products and now we bring them to you.

The nail products contain these natural minerals. The cuticle oil and the lotion we put on your hands - they are made from the Dead Sea and they will help to heal and strengthen your hands and nails. You like how your nails look after using these products?

Lana: Yes, but \$79 is still too expensive.

Salima: Even though the products contain natural and healing minerals, and will last for an entire year?

Lana: Yes, I'm afraid so.

Salima: (Salima pauses for a long time, and squints her face in intense concentration.) I tell you what I'm gonna do for you. If you take two manicure packages, I sell you the first one for \$59, the second one you pay only \$29. You like these products?

Lana: Yes, but I'm still not sure about the price.

### **THIS PRODUCT WILL CHANGE YOUR LIFE SERIOUSLY**

Salima: It's gonna be o.k. Here, you take this bag. (Salima hands Lana a bag with the two manicure packages.) These are for you. I'm gonna change your life today.

Lana, this (Salima holds up small bottle) is gonna make you look "Wow"! This is an eye serum. This is gonna change your life seriously. Most women worry about the circles under their eyes. Is that something that bothers you?

Lana: Yes, of course.

Salima: This eye serum will totally fix that. I can help you remove those circles. Come, please, sit here (Salima gestures towards a chair) and I will show you.

(Lana sits).

Salima: Why is it that this eye serum can remove the circles? Because of the minerals from the Dead Sea. Minerals are something your body needs and recognizes in one second.

Lana: Hmmm.

Salima: I tell you the truth. Seriously. Don't look at my shoes. What color shoes do I have?

Lana: Black?

Salima: Do you know or is it a guess?

Lana: It's a guess.

Salima: Yes. Because it's not important the color of my pants or my shoes, or your pants or your shoes.

(Salima covers her eyes.) Lana, what color are my eyes?

Lana: Blue.

Salima: Yes. Yes. Yes. (Salima uncovers her eyes.) Blue. Blue. Blue. Blue. So, more important than our clothes or what we wear, is our face. You look at my eyes. It is the most important thing. Someone looks at your eyes. It is the most important thing. When you met

your husband, you fell in love with his eyes. And his mouth. And his whole face. Not his clothes or shoes.

Your face is your first impression. Your face is your business. It is your calling card. I want to tell you something. See this line? (Salima points to wrinkle on Lana's forehead.). In one second today, there is not going to be this line. I will show you something that will change your life. This woman has been here an hour (Salima gestures to a customer on the opposite side of the kiosk who is with another Atlantis sales associate.). She knows. Look how many products she's buying today. (The woman Salima points to has five small bags full of bottles and tubes).

May I show you something, Lana? Your face is most important. It is what people notice. Not your clothes or your shoes, your face. (Pause.) Look at the skin on your face and around your eyes. (Salima gives Lana a hand mirror.) What do you notice?

Lana: Dark circles. Puffiness under my eyes.

Salima: Right, like most women. Why do you think that is?

Lana: I'm tired. And I'm getting older.

Salima: No. You are using eye creams, yes?

Lana: Yes. How did you know?

Salima: (Wrinkling her face with concern.) Many women make mistake of using heavy creams under their eyes, which causes the skin to sag and makes us look older. What kind of cream are you using?

Lana: I use the department store creams...Estée Lander.

Salima: These creams are expensive, yes? But even more, these creams are bad for this sensitive skin here (points to skin under Lana's eyes). The creams are heavy and make the eye tissue sag. You should never, ever use this heavy cream around your eyes. Use a lighter eye serum. Do you know how many minerals are in this serum? (Salima gives Lana a tube of eye serum to hold.)

Lana: No.

Salima: This is a very special formula and contains 21 minerals. It is really good for this area under your eyes and the wrinkles at the corner of your eyes. It will make the lines disappear and you will look younger. Would you like for me to show you?

Lana: It will make me look younger? Yes!

Salima: It is ok to touch you? I have to ask everyone that question. I will put the serum around one eye and you will see amazing difference in one minute.

(Lana nods. Salima begins gently applying the serum with her ring finger to the "laugh lines" on the side of Lana's left eye, underneath the eye, and to the "scowl" lines on one side of her eyebrows. She talks as she works.)

Lana, these minerals heal this damaged skin tissue. They are essential for cell metabolism. Just relax your facial muscles. Do you feel the cooling? I am soothing your skin. This serum is also a natural disinfectant. We are removing built-up layers of sun damage. Now, Lana, you try to apply.

(Salima puts a drop of the eye serum on Lana's finger and points to where she should apply it.)



Gently, gently. That's it. Very good. And this serum also protects against UVA and UVB rays. This also balances the skin moisture. This has linoleic acid and alpha-linoleic acid, which are the essential fatty acids for younger-looking skin. Now we will wait another minute, and I am going to show you the difference.

(As Salima has been applying the product, two other women walking by have stopped at the kiosk to watch the process.)

Salima: (Salima beckons to the two women.) Come, see the difference.

Now, Lana, while the eye serum is working, I will apply anti-wrinkle cream to this curved line around your mouth, the one shaped like a parenthesis. This line tells your age.

(Salima gives Lana the container of anti-wrinkle cream and, speaking for the benefit of Lana and the two other women, slowly dabs cream on the parenthesis line from Lana's nose to her mouth.) Now promise me, Lana, you are going to throw all your other creams away.

And I tell you why. This anti-wrinkle cream has a combination of 21 minerals from the Dead Sea and contains beta carotene-very healthy, comes from carrots-and Vitamin A. You like to take care of yourself and eat healthy, be healthy, yes?

Lana: Yes, of course.

Salima: Now, Lana, you apply cream now.

(Salima puts a drop of the anti-wrinkle cream on Lana's finger and indicates where she should apply it.)

Yes, that's it-just in the crease. This cream, you will see, restores your skin's elasticity and keeps it soft and smooth. It firms skin, here, so line is not as noticeable, makes you look younger, fresher and has anti-aging properties. You will see. Now we wait a few more moments.

Salima: (Stands in front of Lana,). You're gonna promise me you'll throw all your other creams away? (Lana nods in assent.) Lana, do you know these people? (Salima gestures to the two passersby.)

Lana: No.

Salima: They will tell you. You will see. This will change your life. Cover this side of your face-the side that I have just treated with the cream-with your hand.

(Salima moves aside and speaks to the two women.) Now, look at side that did not have cream.

(The two women look at the untreated side of Lana's face.)

Now, Lana, move your hand and show them the side I treated with special cream. (Lana moves her hand. The two women's eyes light up and they murmur in amazement about the difference before and after treatment. Salima gives Lana a hand mirror.)

Salima: Now you will look.

Lana: (Looks in mirror.) Oh my! I can't believe it. The wrinkles are really diminished!

Salima: (Confidently.) Yes, of course. And all natural. No chemicals. You use these products regularly and you look ten years younger. And if you look younger, it's gonna make you feel better. In a little bit, I will do your other side of your face so you don't look uneven. Now are you gonna throw your old creams away?

Lana: How long would I need to use your eye serum and face cream? Is this a permanent thing? Or will I need to keep it up the rest of my life?

Salima: No, No. You use them regularly-once, twice a week-for the first month and then from time to time, whenever you need.

(The two other women nod goodbye to Lana and Salima and leave the kiosk.)

### **A FULL YEAR'S SUPPLY**

Lana: How much is the eye serum?

Salima: This size bottle will last you for one year. It costs only \$179.

Lana: (Gasps.) Did you say \$179?

Salima: Yes, of course. How much do you pay for all your cosmetic creams? This eye serum and the face cream - these products are all you are ever gonna need again. This is a full year's supply.

Lana: How much is the face cream?

Salima: The cream is only \$239. (Lana gasps again.) You get this entire jar which is gonna last you a year. After that, you're not gonna need any more cream. You not gonna need cosmetic surgery. You will have natural and more beautiful skin. And is also good for this area sagging under your neck. People are gonna think you had a face lift! (Lana laughs) Look at these photos-one photo before of woman's neck. And this one after. See the difference!

(Salima places an empty paper bag in Lana's hands.)

Salima: So you like these products? Which ones will you use?

Lana: (Lana nods, still speechless at the price.) Well, I liked the nail buffer.

Salima: You like the nail products? Saves you lots of money. Very smart. (Salima places the nail care package with all four products in Lana's bag.) Only \$59 for you. No more need to go to nail salon. You can do your nails yourself-fast.

You like the eye serum, yes? (Hands Lana the mirror again and places eye serum in the bag.) Only \$179 for a year's supply-maybe it lasts you longer than that.

You like the cream? This serum and cream make you look ten years younger! Don't take my word for it. Those other two women saw difference, too! Your friends will see difference. The cream is only \$239. (Salima places cream in bag.) And I'm gonna give you my e-mail address. You write me anytime you need help with these products. Or e-mail me pictures. You have any questions, I am here for you. And you can give me your e-mail address and phone number so I can get in touch with you and see how you are doing with these products. Let me get a piece of paper so I can write down your information.

(Salima walks over to the register. Lana follows, bag in hand.)

Lana: (Gives Salima the bag of products). Thank you for all of your help and all of your time, but I can't spend this kind of money. This is over \$400!

Salima: Yes. But is so good for you-all natural-and makes you look better-and lasts all year. Much cheaper than facelift and you do this for yourself. How often you pamper yourself?

Lana: (Admits.) Not very often.

Salima: So you pamper yourself now with these products. Save yourself lots of money. Do something nice for yourself.

Lana: I really can't. This is just too much money.

## MORE DEALS

Salima: (Slumps, bends head with her hand on her forehead giving the appearance of intense concentration and deep thought, like Rodin's The Thinker.)

You know, Lana, I like you. You are nice lady. (Gives Lana the bag with the nail care package, eye serum, and anti-wrinkle cream.) Are you gonna use these products? O.K. Here's what I'm gonna do for you. You buy the nail buffer, the cuticle oil, the lotion, and the file. All of these products for you for only \$59. The second package I give you for a friend for \$29. You buy the eye serum for \$179. You see the change around your eyes yourself, yes? (Gestures towards Lana's eyes.)

(Salima lowers voice.) Don't tell anyone I told you this. For you, only you, I throw in the cream. As my gift to you. \$239 dollars. Gift. Because I am the manager, I can do that for you. In exchange, you send your friends to me, but don't tell them that I gave you this cream for free. You tell people about these products. They're gonna see how good you look, you advertise for me. I can give you the cream at no charge.

(Salima, complicit now with Lana, gives her a triumphant smile.) Now you pamper yourself on me. My gift to you.

Lana: But this is still over \$200. Thank you, but I simply can't afford to do this.

Salima: (Incredulous, holding open palms out.) But you are worth it. I know this. It is your skin. Not your clothes. Skin is very important. Your health is very important.

Lana: It's just too much money for me.

Salima: (Downcast eyes, intense concentration) What is money? This is your skin we're talking about. I'm gonna help you. You have a friend, yes? You take two nail care packages, one for you and one for her, you can have for only \$59 and \$29. I still give you the cream. Come closer, Lana. The eye serum, (lowering voice) I give you for \$139, my employee discount. Let me help you.

# NPV SIMULATION: TECHNICAL ASSOCIATES, INC.

**Robert Stretcher, Sam Houston State University**

**Michael McLain, Hampton University**

## CASE DESCRIPTION

*The primary subject matter of this case concerns a decision on an expansion project for Technical Associates, Inc. The firm is aware of the possible risk effects inherent in the project, and desires a net present value distribution rather than a discrete number on which to base a decision. Secondary issues examined include the process of creating a simulation using an excel spreadsheet. The case has a difficulty level appropriate for senior level finance or analytical business courses or for graduate courses in business. The case is designed to be taught in three class hours and is expected to require six hours of outside preparation by students.*

## CASE SYNOPSIS

*This case has proven to be an indispensable analytical tool for the creation of informational justification of go/no-go decisions in the professional business environment. Students experience the value of "number crunching," realizing that informed decisions in business almost always require analysis of risk and return impacts on a firm's shareholders. Without appropriate information from the analysis, a manager is simply making an uninformed decision. The NPV distribution resulting from the analytical methods required in this case is necessary at higher levels of management where the manager must accept responsibility for the long term effects of their capital budgeting decisions.*

Bryan Meltzer looked at the email from the CEO with disgust. It was Friday, a fair weather weekend, and 34 minutes left in the working day. And then this email:

### Exhibit 1: Email from Rick Burton.

**Kittrel Bid**

Burton, Richard [rick.burt@%\*#:=.com]

Sent: Tuesday, September 1, 2009 2:41 pm

To: Meltzer,Bryan; more...

Attachments: B451092.pdf

*Please assess a bid from Kittrel Ebusiness. I want to have a meeting Monday afternoon to see what you have come up with. Attached are estimates of input data and other items of interest. The Board of Directors will meet on Tuesday evening at the Hyatt, and I would like to give them a brief presentation of our analysis of the project, with an idea of how the variability of inputs might affect the project's value to the firm. A simulation of, say, 10,000 iterations would prove useful if the Board has questions. Thanks to all!*

*Rick*

Bryan had been with the firm for three years, and Rick had sprung projects on the financial staff before. Bryan knew that his weekend plans were shot now, since time was of the essence. He had to admit, though, Rick had rewarded the financial team generously in the past when he had encroached on their time. Bryan still dreaded the announcement he had to make to his staff of six analysts. He walked to the analysts' suite.

"Well what plans did you used to have for the weekend?" he asked. There was a unanimous groan from the room. "Remember the big bonuses we got last year? This weekend we're working on the next one. I know that doesn't make you any happier, but we have a project proposal. It's big, and Mr. Burton wants to have a complete presentation for the board meeting Tuesday evening."

The room was silent. All of the analysts knew that this was part of the job, but none were the least bit happy about it. "I'll compile some things and get them to you guys tonight," Bryan said. "Why don't you take a look at this at home tonight, and we'll dive in tomorrow morning at, say 10:00 am. That will, at least, give you some flexibility tonight."

One of the analysts, Krista Grindell, spoke up. "How many input distributions are we looking at? And... do we have sales and cost estimates already, or do we need to coordinate with marketing and accounting?"

"Good question. Open Rick's attachment, and we'll see. I forwarded it to all of you just a minute ago," replied Bryan.

Krista opened the bid file. "We have the marketing estimates, but we need to get operating cost estimates still," she said.

Bryan picked up the phone, and called Steve Genero, a cost accountant with the firm. All of the analysts were listening. Bryan thought to himself, "I should have gone back to the office to call, but we're so pressed for time..." Steve answered. "Steve - Bryan. Did you have plans tonight?" Steve was Bryan's college roommate, and the two were good friends. The room listened to one side of the conversation: "Yes, once again....We can go to the lake some other weekend...No, this time it's a simulation...All I need you to do is stay late today, and do some operating cost estimates. Oh - and I need an exact marginal tax rate, as a percent of EBIT...Can't use the old one - this will change the income levels... Yes, that's all... No, I need to be here tomorrow to do this. You guys have fun... Later - bye" Bryan hung up.

"Good call, Krista. He was going to leave in about a half hour," Bryan said. "OK, folks, anyone have extreme issues?" Bob Denton spoke up, "Well, I was going to have brain surgery, but it can wait, I guess."

"Funny!" said Bryan. "Any real issues?" No one said anything. "Alright, guys, see you in the morning. Don't forget to take a preliminary look tonight."

The group resumed their end-of-day activities. Bryan left the room and headed to Steve's office.

### THE ANALYSIS

By 10:00 the next morning, the analysts had reassembled. Jennifer McElroy, one of the analysts, had not only taken a preliminary look, but had already started work on the project. Everyone was impressed.

"You could have waited until this morning," Bryan said.

"No way!" exclaimed Jennifer. "I have a date tonight! I don't want this to be a two-day marathon. Let's get busy!"

Jennifer had summarized the large lot of information that the group had been provided, and handed out her summary to all of the analysts. Krista had already started on the simulation - in Microsoft Excel 2007, because she hated the statistical software some of the others liked to use. She figured if she did the set-up in Excel, the others would not want to start from scratch again. She quickly projected her spreadsheet on the screen for everyone to see. "I have completed the inputs page, except for the operating cost inputs and tax stuff."

"OK fellas, the opposing gender has one up on you!" he kidded. "Here is the cost and tax data, Krista. Why don't you email the file to everyone?" Bryan really preferred Excel as well, since it was easy to integrate the output into word documents for reports and into presentation software for projection.

"We seemed to have the most success last time working in pairs and then comparing results. Let's do that again." The analysts paired off and began the day's task. Jennifer's head start had saved at least half a day, and Bryan figured she might be able to keep her date that evening, after all.

#### Exhibit 2. Jennifer's summary.

2009 Sales estimate (as if the project were already up and running): \$25,928,900

Expected sales growth 8%, 95% of time between 1.336% and 14.664% for years 1-5.  
(Translates to a mean of 8% and a standard deviation 3.4%, in years 1-5)

Expected sales growth 5%, 95% of time between 1.864% and 8.136% for years 6-10.  
(Translates to a mean of 5%, and a standard deviation 1.6%, in years 6-10)

Cash expenses expected to be 47% of sales, 95% of time between 40.532% and 53.486%  
(Translates to a mean of 47% and a 3.3% standard deviation)

\$64,235,000 Asset Expansion, depreciated on a 7-year MACRS schedule, with a 10-year life

MACRS 7-year Depreciation Percentages per year:

year 1	14.29%
year 2	24.49%
year 3	17.49%

year 4	12.49%
year 5	8.93%
year 6	8.92%
year 7	8.93%
year 8	4.46%

Tax rates expected: 35.4% of EBIT on average, 95% of time between 28.344% and 42.456% (Translates to a 35.4% mean with a 3.6% standard deviation, based on higher income levels after the expansion and expected political action concerning tax policy)

Appropriate discount rate for project: 18%

**Exhibit 3.** Jennifer's "Parameters" worksheet.

	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>SIMULATION PARAMETERS</b>											
2												
3												
4			<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
5	Sales	Mean	8.00%	8.00%	8.00%	8.00%	8.00%	5.00%	5.00%	5.00%	5.00%	5.00%
6		Std Dev	3.40%	3.40%	3.40%	3.40%	3.40%	1.60%	1.60%	1.60%	1.60%	1.60%
7												
8	Cash expenses	Mean	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%
9		Std Dev	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%
10												
11	MACRS Depreciation	Percent	14.29%	24.49%	17.49%	12.49%	8.93%	8.92%	8.93%	4.46%	0.00%	0.00%
12	Base:	Amount	\$9,179,182	\$15,731,152	\$11,234,702	\$8,022,952	\$5,736,186	\$5,729,762	\$5,736,186	\$2,864,881	\$0	\$0
13												
14												
15	Tax Rate as % of EBIT	Mean	35.40%	35.40%	35.40%	35.40%	35.40%	35.40%	35.40%	35.40%	35.40%	35.40%
16	(forecasted)	Std Dev	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%
17												
18	2009 Sales		\$25,928,900									
19	Risk-Adjusted Disc-rate		18%									

### THE TASK

This simulation will involve many rows of calculated data. Spreadsheets, by default, recalculate the entire workbook when any equation is entered. Wait time may become problematic when 10,000 iterations times seven pages is recalculating. To speed things up a bit, you may want to turn off Autocalculation. This is done in Excel 2003 by selecting Tools... Options... Calculate from the toolbar and Select "Manual" or in Excel 2007 by selecting Formulas... Calculation Options... "Manual." The user can then recalculate the workbook at any time by pressing F9.

Managers are likely to easily give a range of data in which they expect 95% of the values to be framed, and this was management's response in the case (see Exhibit 1). The 95% confidence

interval needs to be converted into a standard deviation. This is done by dividing the specified deviation above or below the mean (they should be equal since the data is thought to be normally distributed) by 1.96 (almost 2 standard deviations). Jennifer did this in her summary.

You might also benefit from some guidance on how to specify random numbers or normally distributed random numbers: The "Math and Trig" function RAND() generates uniformly-distributed random numbers. Random normally-distributed numbers with, for example, a mean 100 and standard deviation 20, can be generated using the "Statistical" function NORMINV, specifying Uniform random number inputs RAND() within the NORMINV Formula: NORMINV(RAND(),100,20)). This can be specified by Selecting Formulas... More... Statistical... NORMINV and entering RAND(), 100, and 20, as the specifications.

For a bit more orderly analysis, set up a standard workbook with seven worksheets: Parameters, Sales, Cash Expenses, Depreciation, EBIT, NCF, and PVNCF.

IMPORTANT NOTE: For each of the steps in the analysis, if Autocalculation is off, you can Manually Recalculate (by pressing F9) the data in order for the workbook to be updated.

The "Parameters" worksheet (Jennifer's Exhibit) lists the parameters of the model. In the rest of the worksheets, it is most convenient to put the data in "row form" - see Exhibit 4 for an example sales worksheet.

The Sales worksheet generates data as a simple random growth rate model. Specifically,  $Sale_{t+1} = Sale_t * (1 + gt)$ . For each cell of data, the growth rate is normally distributed, with mean and standard deviation specified in the "Parameters" worksheet. Since each year's sales may be serially correlated, the sales figure for each year should be based on the prior year's sales times  $(1 + gt)$ . Using this information, construct a row of estimated Sales data (with each column representing a specified year). Your own result will differ from Exhibit 4 since you will have different randomly selected inputs for years one and two. Although only two rows of data are shown as an example here, your spreadsheets will have 10,000 rows of data per sheet. The remaining worksheets are constructed in a similar fashion, with 10,000 rows each by 10 years of projections (2010-2019) in the columns.

**Exhibit 4. Sales Worksheet Visual.**

	A	B	C	D	E	F	G	H	I	J	K
1	Sales										
2	ITERATION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
3	1	\$28,267,351.51	\$30,722,213.64	\$32,893,255.50	\$36,161,042.85	\$39,225,892.91	\$41,443,836.16	\$43,277,053.67	\$45,131,087.87	\$48,093,388.23	\$49,552,730.24
4	2	\$27,598,882.68	\$29,344,768.08	\$30,977,035.92	\$35,751,645.08	\$38,514,747.35	\$40,999,288.16	\$42,771,092.14	\$44,997,941.86	\$46,513,321.90	\$49,170,192.18

The COGS and Expenses worksheets contain values calculated simply as percentages of estimated Sales. For convenience, base the COGS in a specified cell on the same column and row specified cell from the sales sheet, and the same for the other sheets. In this simple model, EBIT is calculated as:

$$EBIT_t = (Sales_t - Cash Expenses_t - Depreciation_t)$$



and Net Cash Flow (NCF<sub>t</sub>) is calculated as:

$$EBIT_t * (1-T) + Depreciation_t$$

The last worksheet is the Present Value of NCF<sub>t</sub>. Recall that:

$$PV(NCF_t) = NCF_t / [1 + \delta]^{(t-2009)}$$

Construct a single column of data for PV(NCF) within the PVNCF worksheet.

## **INCOME INFLATION: ABSORPTION COSTING VS. VARIABLE COSTING**

**Gerri B. Wink, Colorado State University – Pueblo**  
**Laurie J. Corradino, Colorado State University – Pueblo**

### **ABSTRACT**

*Robert had no idea how much his life was about to change. He thought he had acquired a “forever” career with a financially strong company. What he had not considered, though, was the effect his new supervisor could have on his career.*

*This case examines the income inflation opportunities available to unethical managers. These opportunities arise when production exceeds sales and occurs as a result of the differences between absorption costing and variable costing.*

*An absorption costing income statement is provided at three different sales levels with production remaining constant. The case asks students to use that information to prepare a variable costing income statement at those same levels assuming production remains constant. The case also asks students to differentiate between fixed and variable costs, to discuss ethical choices, and to discuss the “tone at the top”.*

*The full case along with teaching notes for three different levels of classes; beginning, intermediate and graduate are available from [geri.wink@colostate-pueblo.edu](mailto:geri.wink@colostate-pueblo.edu).*